

War and World History

Professor Jonathan P. Roth



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Professor Roth has taught at Tulane University in New Orleans, New York University, and the University of California, Berkeley. He came to the History Department at San José State University, a part of the California State University system, in 1994 and served for three years as its chair. In 2005, he was honored as San José State University's Outstanding Professor.

Professor Roth has researched, written, and lectured extensively on ancient warfare and warfare in world history. He founded and serves as the director of San José State's Burdick Military History Project. His book *Logistics of the Roman Army at War, 264 B.C. to A.D. 235* was published in 1999, and his *Roman Warfare*, a survey textbook, will be published in 2009. He has contributed chapters to *The Cambridge History of Greek and Roman Warfare. Volume I: Greece, the Hellenistic World and the Rise of Rome* (2007); *Representations of War in Ancient Rome* (2006); and *The Roman Army and the Economy* (2002).

From 1983 to 1989, Professor Roth served in the 69th Infantry Regiment of the New York Army National Guard. He enlisted as a private, was promoted to corporal, and, after graduating from the Empire State Military Academy, was commissioned a second lieutenant. He then served as a platoon leader in Company A, as well as chemical officer and mobilization officer. To paraphrase Edward Gibbon, the officer in the National Guard has not been useless to the military historian.

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War and World History

Scope:

War and World History is not a lecture series on military history as traditionally understood. We will discuss few wars, even fewer battles, and almost no strategy. Even great campaigns of conquest, such as those of Alexander or Genghis Khan, will be studied only to measure their historical impact. Some lectures feature weapons, unit organization, tactics, and logistics, but only to explore the complex interaction between warfare and human society and culture.

War is, and always has been, hell. By its very nature, war involves mass killing and maiming, severe psychological damage, and social dislocation. The long tradition of glorifying war continues into the present, though modern scholars generally view war as a completely negative factor in history, draining resources and attention from civilized activities. In truth, despite its horrific effects, war has always been a remarkable driving force behind invention and innovation. The Greek philosopher Heraclitus said, “War is the father of all things,” and although this is an exaggeration, many aspects of civilization arise directly or indirectly due to the needs of warfare. Some of the most beautiful and moving pieces of literature and art have been inspired by war. The relationship between religion and war is often commented on, but it is far more complex and subtle than is generally recognized. Warfare is an integral part of virtually every human culture and society.

The history of world warfare is usually told as a series of regional chapters, such as Western war, Islamic war, and Chinese war. This course has another perspective. While it is important to look at developments around the world in their own contexts, warfare develops both chronologically and geographically. The technology of war spreads much earlier and more globally than is generally recognized. Some of the astonishing similarities in war in very distant regions, such as the use of the chariot in western Europe and China, are due to diffusion and not independent invention. We trace some of these surprising stories of how far and how quickly such weapons and weapons systems traveled. We also look at those cases in which similar weapons were indeed developed separately by different cultures. And we trace the changing ideas of war in a world context.

Our main focus will be on what world historians are increasingly seeing as a single great cultural zone, a broad swath of Europe, northern Africa, and Asia, from Atlantic to Pacific. We will also look at warfare in sub-Saharan Africa, the Americas, and Oceania, especially as their importance grows with increased globalization, starting in the 16th century and continuing to today.

At the beginning of the course, we discuss some of the major themes of world warfare: How do we define “war”? Why do we study war? What are our sources and methods for reconstructing past warfare? This course divides roughly into three periods: the ancient period, up to around A.D. 600; the medieval and early modern period, from 600 to 1700, including looking at the Americas and Oceania before “contact”; and the modern period, ending with a look at 21st-century war.

In each period, we look at how weapons and civilian technology, and military and social organization, changed—with the worlds of war and peace constantly influencing each other. A major theme is the ubiquitous alternation of periods of political centralization and decentralization, generally linked with changes in military practice. We also see how the needs of war, especially changes in its cost, affected the economies and finances of states and societies, including coinage and the stock market. Certain lectures focus specifically on revolutionary military changes—such as the introduction of the horse, the chariot, gunpowder, and the regiment—that transformed not only war but also society and culture, in every place that they were introduced. Conversely, we will see how some purely civilian developments, such as writing and steam power, have had dramatic impacts on the way wars were fought.

Several lectures focus on naval warfare, and we will discuss the relatively recent development of air war. At regular intervals, we will compare the military forces of great states. In each period, a lecture will cover how warfare has influenced arts and letters around the world. We will see how painting, sculpture, books, and even fashion have interacted with war. Certain lectures explore specific themes, such as war and religion; how the concepts of race and rank developed; and the interaction of war and such ideologies and practices as democracy, communism, fascism, and terrorism. The last lecture discusses modern pacifist and disarmament movements and humanity’s attempts, so far unsuccessful, to end war.

Lecture One

What Is War?

Scope: Cultures often have opposing and evolving views of warfare. Modern military thinkers and scholars have defined war in different, often contradictory, ways. New studies in neuroscience offer important insights into understanding war. “Nature versus nurture” turned out to be “nature *and* nurture.” The theory of war is important, but we also need to understand its practice.

Outline

- I. “What is war?” seems to be a very simple question, but the more deeply we examine it, the more complex it becomes.
 - A. Individuals and groups often hold different, ambiguous, and sometimes contradictory, views about war.
 - 1. The ancient Sumerians saw war as descending from heaven and making humans civilized. On the other hand, Nergal was an uncontrollable Sumerian god of war and plague.
 - 2. The Greeks and Romans saw war both as a part of nature, as in the Platonic idea of earthly war reflecting an ideal reality of war, but also as a plague on humankind brought by war gods such as Ares and Mars.
 - 3. In both Chinese and Indian writings, we also see similar conflicting ideas. Warfare is seen as one of the elements of the degeneration of humankind from the golden age, but war is also a noble activity, especially when defending civilization against the intrusions of barbarians.
 - B. There is a tendency in academia to assign particular attitudes about war to particular ancient cultures, sometimes labeling them as naturally peaceful or naturally warlike.
 - 1. This idea is associated with a multicultural view of history. In the case of war, however, multicultural theories generally do not reflect the historical record.
 - 2. We shall see cases of very warlike societies becoming relatively peaceful and vice versa.
 - 3. Over time, theories and attitudes about war became more sophisticated in most cultures.
 - C. With the rise of the nation-state, a more legalistic view of war arose.
 - 1. Hugo Grotius developed the basis for the modern laws of war. In *On the Law of War and Peace* (1625), he defined war as a condition in which fighting and killing were legally permitted.
 - 2. By the 18th century, most Western states had accepted the necessity of a formal declaration of war.
 - 3. The legalistic view of war was not shared by everyone in 18th-century Europe. Denis Diderot defined war as a plague that attacked the body politic.
- II. A passage in Carl von Clausewitz’s *On War* (1832) is usually translated “War is merely the continuation of politics by other means,” though German *Politik* can mean both “politics” and “policy.”
 - A. Most modern historians take this definition to represent a rational, or political, theory of war. As is often the case with great thinkers, what they mean is often less influential than what they are thought to mean.
 - 1. Von Clausewitz’s meaning of war is a conflict between two states. Tribal warfare or gang warfare is thus not war at all but simply a sort of mass violence.
 - 2. John Keegan, in *A History of Warfare* (1993), argues that warfare is an expression of culture; what war is differs from culture to culture.
 - B. Professor Christopher Bassford of the National War College points out that von Clausewitz saw the political element of war as only one part of the “paradoxical trinity” of war.
 - 1. The political part of the trinity von Clausewitz associated with government, which ideally made rational choices for the benefit of the state.
 - 2. The second part of the trinity, associated with the people, is its opposite: a “blind natural force” of hatred and other deep human drives.
 - 3. The third part of von Clausewitz’s trinity is “the play of chance and probability within which the creative spirit is free to roam.” This he associated with the army, and here he seems to mean that war is a sort of art or science (or perhaps both).
 - 4. None of these three aspects of war defines it. Rather von Clausewitz writes: “Our task therefore is to develop a theory that maintains a balance between these three tendencies, like an object suspended between three magnets.”
- III. Other academic disciplines have also looked at war and tried to understand its essentials.
 - A. The various definitions and perspectives are not contradictory but rather provide different perspectives on an elusive phenomenon.
 - B. In philosophy, there has long been a debate between nature and nurture in defining war.

- C. Psychologists have long been concerned with the issue of violence, though not much psychological study has been done from a military perspective.
- D. Let me sum up with a few of my own ideas about the theory of war.
 - 1. We need to bring von Clausewitz back into the forefront of our theoretical studies.
 - 2. Although the psychology of aggression is important to understand, war is not a matter of individuals but of organized groups.
 - 3. It is not the number of deaths that defines war.
 - 4. While violence or potential violence is a necessary part of war, unrestrained or uncontrolled violence is by definition not war. War involves the restraint and organization of violence.
 - 5. Primitive war is different from modern war, but one did not replace the other. Rather, modern war absorbed primitive war.
 - 6. The psychological idea of an emergent property is very useful in discussing all aspects of war. War and peace both exist as emergent properties of human relations.
 - 7. While it is important to understand cultural and philosophical elements of war, we must not forget to look at the way war was actually fought.

Suggested Reading:

Bassford and Villacres, "Reclaiming the Clausewitzian Trinity."

Keegan, *A History of Warfare*.

Questions to Consider:

- 1. How does von Clausewitz's theory of war differ from Keegan's?
- 2. What is the relationship between human violence and war?

Lecture Two

The Historiography of War

Scope: Written traditions help us reconstruct war. Ancient writing is most valuable when a historical narrative is established, such as among the Greeks and the Chinese. When perishable material, such as papyrus, is used, the narrative's survival relies on manuscript transmission. Some original documents survive due to being written on durable material, such as stone or metal, or because of special conditions. We can also learn much from archaeology. Graphic art is a source of information, both about the reality and the perception of war. Our focus depends on the historical method and philosophy being used. Therefore, an understanding of historiography is vital.

Outline

- I. To understand war and its effects, historians must go beyond theory and try to understand as much as possible about the reality of war. In this lecture, we will discuss ways in which historians try to reconstruct warfare in the past.
 - A. Storytelling about war was originally the only way of preserving its memory. Today, war stories remain an important part of culture and continue to influence our ideas.
 - 1. When we try to reconstruct war in nonliterate societies, oral histories can take on an important role.
 - 2. Oral histories must, however, be viewed critically.
 - 3. World War I veterans incorporated scenes from the movie *Gallipoli* into their memories of the war.
 - 4. Studies have shown that within three generations, oral histories tend to resemble more fiction than fact.
 - B. Virtually all of our information about the history of war comes from written sources.
 - 1. Remarkably, there are original ancient and medieval military documents that have survived sometimes thousands of years.
 - 2. Most of our information about the premodern world, however, does not come from original documents but from texts that have been recopied.
 - 3. To be useful, texts must not only survive but also be readable by scholars. Scholars are constantly working to decipher and translate scripts.
 - 4. Much writing about war is derived from an author's personal experience.
 - 5. After the introduction of printing, written sources multiplied exponentially. There was a surprising number of works printed simply to record the experiences of common soldiers.
 - C. As important as writing is, nonwritten sources are sometimes even more valuable.
 - 1. Even when we have access to the writing of a culture, archaeology can give us insight and sometimes even correct misconceptions derived from written material.
 - 2. Traditional archaeology, based on the study of fortifications, only occasionally yields evidence of battle. This has changed in recent years with the development of battlefield archaeology.
 - 3. Many physical objects of soldiers and armies remain. Armor and weapons are common survivors, even from ancient cultures.
 - 4. Reconstruction and reenactment are tools often underutilized.
 - 5. Art in its various forms is a very important source of information, both about the reality and the perception of war. Audio recordings, photographs, and film are particularly valuable, but must still be viewed critically.
 - D. In the study of war, each fact is made up of a combination of evidence and analysis using a process called the historical method.
 - 1. History is always changing. Sometimes our view of the past changes because of new evidence.
 - 2. Sometimes history changes through the reinterpretation of existing evidence.
 - 3. We cannot expect our sources to record everything. What our sources do not say is often as important as what they do.
- II. Historiography—the method and philosophy of understanding the past—is as critical to the study of war as to any other historical study.
 - A. In modern terms, history means not just a chronicle or narrative of the past but rather an active inquiry into why the past occurred the way it did.
 - B. The changing methods and theory of the Western historical tradition have had a particular influence on our view of world warfare.
 - C. The 19th century also saw the beginning of professional history. Despite the often racist or nationalist views of academic historians during this period, these scholars were committed to instituting more scientific and critical methods of understanding the past.

- III.** Another important direction in 19th-century historical thinking was the idea of historical dialectics, proposed by Hegel and adopted by Marx and Engels.
- A.** Dialectical thinking had a great deal of influence on von Clausewitz's ideas.
 - B.** The 20th century saw the development of a number of historical schools, though these had much less impact on military history than on intellectual and social history.
 - C.** Most military history published today remains focused on the West in general, and Europe in particular.

Suggested Reading:

Ferguson, "A Paradigm for the Study of War and Society."

Perlmutter, *Visions of War*.

Whitby, "Reconstructing Ancient Warfare."

Questions to Consider:

1. What factors have led to a tendency to Eurocentrism among military historians?
2. How could we judge if the West has a distinct military tradition?

Lecture Three

The Stone Age War

Scope: Evidence is very limited for the Paleolithic era (2.5 million years ago to 10,000 B.C.), and much is subject to multiple interpretations. A stone ax could be used for hunting or fighting, and traumatic injury could result from war, but also from murder or ritual sacrifice. The bow and arrow was a key invention of the late Paleolithic, occurring in Europe around 40,000 B.C. The first evidence of war in cave paintings features the bow. The spread of the bow illustrates the question of diffusion versus independent invention. Evidence of war increases in the Neolithic era, such as mass graves of slaughtered persons and early fortifications. A 5,300-year-old body found frozen in the Alps (Ötzi) gives us a remarkable view of early group conflict.

Outline

- I. In this lecture, we address a very basic question: How far back in history does warfare go?
 - A. Dating events in prehistory is complex, even with modern tools such as radiocarbon dating.
 1. Thus the dates in this lecture and the next few ones are approximate, at times very approximate.
 2. This is not to say that accurate dating is not important—indeed it is the basis of history—only that in the case of prehistory or early history, accuracy is very difficult and sometimes impossible.
 - B. Direct evidence of war or even violence in general during the early and middle Paleolithic eras is very limited, and what little has been discovered can be interpreted in many ways.
 1. The Paleolithic era is defined by the use of stones as tools. But there is some evidence of the development of weapons during this period as well.
 2. The spear is the first identifiable weapon. The earliest direct evidence of it dates from about 400,000 years ago.
 3. If early humans were scavengers rather than hunters, it changes our view of the Paleolithic considerably. According to the scavenger theory, the spear was used not to kill prey but to drive off other scavengers like hyenas and vultures.
 4. The next innovations in weaponry, the stone spear point on a wooden shaft and the dart, appear to go back to around 80,000 B.C. Their development may have been part of what some paleontologists call the great leap forward.
 5. Around 30,000 B.C., the first cave paintings appear. These show the hunting of animals such as bison with spears. Some scholars have interpreted some human figures as showing signs of being wounded by spears, but this is far from clear.
 6. Around the same time, about 30,000 B.C., one finds the first evidence of the spear-thrower. This is a notched stick into which the spear was fitted, allowing the spear to be hurled farther.
 - C. From the point of view of the development of warfare, probably the most important invention of the Paleolithic was the bow and arrow.
 1. The earliest evidence dates to about 9000 B.C. The bow was the first machine. It stores kinetic energy when the string is pulled back.
 2. The original bow is known as a simple bow: a straight piece of round wood, such as a branch, with a bowstring generally made of sinew, twisted hemp, or even human hair.
 3. Our earliest evidence for the use of bow and arrow are stone arrowheads, though these were probably developed sometime after the arrow itself.
 4. The bow revolutionized hunting and could, of course, also be used to kill people. The invention of the bow is so important that we can call it the bow revolution.
 - D. Around 12,000 to 11,000 B.C., we find the first direct evidence of the mass killing of humans, perhaps the first direct evidence of war.
 1. The so-called Cemetery 117 in Egypt dates to this period. It contains 59 bodies, many with evidence of violent and likely lethal wounds.
 2. There is also a cave painting in Spain that depicts two groups of men attacking each other and is often pointed to as the first direct evidence of war. However, this painting probably dates to the Neolithic period.
 3. In any case, there is no reason to doubt that some form of group conflict existed in this period, whether or not we want to call it war.

- II. One method of trying to understand prehistoric war is to study the behavior of modern tribal peoples.
- A. This idea was basic to the development of anthropology as a study.
 - 1. Although tribes can tell us something about the origins of war, we must remember that tribes do not necessarily represent a survival into the present of a previous way of life.
 - 2. For instance, modern tribal warfare is often motivated by economic factors that would probably not have existed in prehistoric times.
 - 3. The move from hunting and gathering tribes to agricultural villages was not straightforward one.
 - B. The Neolithic, or agricultural revolution, occurred in different regions at different times—as early as 8000 B.C. in the Middle East and Southeast Asia, but much later elsewhere.
 - 1. Groups probably turned to agriculture due to population pressures and the fact that wild animal populations were no longer large enough to support human ones.
 - 2. There are scholars who contend that war really came to exist only in the Neolithic. There is certainly no question that the evidence of war increases during this period.
 - 3. With agriculture, one's food source is tied directly to a piece of land, and thus the stakes of fighting with other groups become higher.
 - 4. One could argue that armies were in fact necessary for agriculture to develop and that organized military was the driving force behind agriculture, not merely the result of it.
 - 5. In his studies of why the West eventually dominated the world, Jared Diamond has argued that the success of early Neolithic societies in the Near East was closely tied to the availability of plants and animals genetically predisposed to domestication.
 - C. It is in the Neolithic that we find the first defenses being built around settlements.
 - 1. Surprisingly, the earliest such defenses, such as those at Jericho, are the most sophisticated. A stone wall about 5 feet thick and 12 to 17 feet high with a stone tower about 30 feet high dates to around 8000 B.C.
 - 2. Some scholars have suggested the Jericho wall was for flood control, but its height and the presence of the tower strongly suggest a defensive purpose.
 - 3. At Catal Hüyük in modern Turkey, the mud walls of the outermost houses formed a defensive perimeter around the village. This site also contains the first examples of stone daggers, maces, and pictures of slings.
 - 4. Despite their sophistication, neither of these sites seems to have led to any further development in defenses.
 - 5. It is true that some Neolithic villages did have walls and ditches around their perimeters, but these defenses are more primitive than those of Jericho and Catal Hüyük, and from a much later date.
 - D. There is no question that war, or at least group violence, did exist across the Neolithic world.
 - 1. The 5,300-year-old body of a man (called Ötzi by archaeologists) was found frozen in the Swiss Alps. He was carrying a flint knife, a copper ax, and a longbow. His quiver held 14 bone-tipped arrows with flint heads.
 - 2. It was originally thought that Ötzi died of an arrow wound, but recent investigation concludes he received a fatal blow to the head. Careful analysis has shown he died as part of a group struggle, perhaps a battle.

Suggested Reading:

Ferill, *The Origins of War*.

Keeley, *War before Civilization*.

Otterbein, *How War Began*.

Questions to Consider:

- 1. What are some of the problems with using modern tribal societies to understand prehistoric ones?
- 2. At what point could war truly be said to have begun?

Lecture Four

Peace, War, and Civilization

Scope: The evidence for war in the rise of the first civilizations is thin and ambiguous. Especially striking is the lack of walls in Mesopotamian cities such as Uruk. Nevertheless, the first evidence for city fortifications occurs at Hamoukar in Syria, around 3500 B.C. There is evidence for war during the so-called Dynasty 0 of Egypt (c. 3300 B.C.), but the earliest written records in both Egypt and Mesopotamia reflect a remarkably unmilitary society. Starting around 2700 B.C., we start to see indications of increasing warfare, with the first written evidence of a war dating to 2550 B.C. By 2000 B.C., the civilizations of the Near East were highly militarized, with sophisticated weapons, logistical administration, and unit organization.

Outline

- I. Since force and coercion have been such an important part of political power for the last 4,000 years, many scholars have surmised that war played a central role in the development of civilization.
 - A. It is surprising, then, that war and armies do not seem to have been at the center of Sumer's early city-states.
 1. Beginning around 4000 B.C., a sophisticated culture developed in Sumer (now southern Iraq).
 2. A single city, Uruk, played a leading role in the rise of Sumerian civilization.
 3. By 3500 B.C., with at least 50,000 to 60,000 inhabitants, Uruk had become the center of a colonization movement that seems to have spread based on trade, not warfare.
 - B. The earliest Sumerian tablets, engraved on stone around 3000 B.C., are contracts and lists, with no mention of war or soldiers.
 1. Other than some cylinder seals depicting bound men being attacked, scholars have found virtually no evidence of war or military force in this society.
 2. Despite the enormous wealth of Sumerian culture, their cities lacked walls and other defenses.
 3. While city temples were walled and may have functioned as citadels, there is no evidence of any of them being attacked in this period.
 - C. In contrast, cities in northern Mesopotamia do seem to have had walls during the 4th millennium.
 1. Archeologists have recently excavated the small city of Hamoukar in northeastern Syria, which was surrounded by a 10-foot mud wall built between 4000 and 3500 B.C.
 2. The wall and the city were destroyed in about 3500 B.C. This is the first known siege of a city.
 3. Hamoukar's attackers used thousands of sling bullets and hundreds of larger clay balls. Hamoukar's wall was destroyed by fire.
 4. The destruction level was replaced by a settlement of the Uruk culture, leading excavators to conclude the attackers were from Uruk.
- II. Why did the wealthiest and most advanced cities in southern Mesopotamia not need armies or defenses while fierce fighting was taking place to the north during the same time period?
 - A. In comparison to hunter-gatherer societies, the population density of Sumerian cities was so high as to provide an effective defense by itself.
 1. In addition, the Sumerian cities were not close to each other, thus making territorial wars unnecessary.
 2. The northern cities were in the middle of major trade routes but were not in control of them. This trade wealth made city walls necessary. Though Uruk was also wealthy, its merchants were the ones controlling the trade routes, making Uruk less liable to attack.
 3. We can also look to the development of pastoralism in the north, specifically the rise of an early form of nomadic pastoralism called donkey nomads. Donkey nomads could be easily mobilized as a military presence, thus creating a threat in the north that did not exist in the more agricultural south.
 - B. This may explain what happened at Hamoukar.
 1. The city was probably the victim of an attack by pastoralists, either hill peoples from the Taurus Mountains to the north or donkey nomads from arid regions to the southwest.
 2. Driving the defenders from the walls with missiles, they scaled the 10-foot wall with ladders and pillaged and burned the settlement. Such pastoralists were interested not in occupation but in loot.
 3. The people of the Uruk culture who resettled Hamoukar were likely not the attackers but were rebuilding to reestablish an important trade center.

- C. In my view, these early peoples were making rational decisions about war making and not simply acting out cultural rituals. We can test this idea by looking at the presence or absence of walls in neighboring cultures.
 1. The Indus Valley civilization, in what is now Pakistan, is almost as old as that of Mesopotamia. The absence of walls in most Indus Valley cities may have the same explanation as in southern Mesopotamia: no warlike neighbors and an abundance of land between cities.
 2. We do find evidence of weapons and defensive structures in China, where agriculture was in close proximity to hill and nomadic pastoralists.
 3. In 4th-millennium Egypt, we also find evidence for war, though not structural evidence. Most of the evidence can be found in illustrations on artifacts like the Narmer Palette, which shows warlike scenes.
 4. Early Egypt was characterized by several factors that led them to war: the limited fertile land along the Nile, the valuable trade routes passing through the area, and the proximity of many hill pastoralists and donkey nomads.
 5. War images become much less common after the unification of Egypt, as the population grew and internal peace became more profitable.

III. Sometime around 2900 to 2800 B.C., substantial walls were built around Uruk. It was not long before all the southern Mesopotamian cities were walled.

- A. Walls had become important symbols both of cities and of kings; the size of the walls of Uruk and other cities might be due as much to prestige as to actual defensive needs.
 1. At the same time, we know that a mythology was developing that kingship and war were created at the beginning of the world and had been sent by the gods.
 2. Around 2700 B.C., we start to see other indications of increasing warfare in a more densely populated Sumer.
 3. The priest-king was replaced by the *lugal*, or war-king. In each city, the new king built a palace surrounded by walls.
 4. The royal tombs of Ur contain much evidence of war, including weapons and armor.
 5. In a Sumerian document of about 2500 B.C., we find the first written record of a battle.
 6. We have much more evidence of war from the middle of the 3rd millennium—not only of struggle between Sumerian city-states, but also with pastoral people and neighboring kingdoms.
- B. At the same time that Sumerian cities were becoming more warlike, cities in northern Mesopotamia, Syria, and Palestine were becoming more sophisticated.
 1. The city of Ebla had a professional army, and the city of Mari grew to be an impressive regional power.
 2. These changes are almost certainly connected to the growing value of the trading networks leading to Mesopotamia and especially Egypt.
- C. By the end of the 3rd millennium, despite their differences in writing, religion, and architecture, all cultures of the Near East shared a common military system in most respects.
 1. The spear with a bronze tip was used universally, with a bronze ax, sickle sword, dagger, or stone mace as a side weapon.
 2. A heavy four-wheeled chariot was used in Mesopotamia and Syria, but not in Egypt.
 3. These cultures were already developing the basic forms of siege that remain fixed even today: blockade and assault.
 4. Soldiers were contributed by temples, villages, and neighborhoods and commanded by the same officials who led them in peace.
 5. We also find the first use of military unit organization and ranks.

Suggested Reading:

Gabriel, *The Culture of War*.

Garlan, *War in the Ancient World*.

Gnirs, "Ancient Egypt."

Questions to Consider:

1. Does our evidence for warfare in this period support a geographic explanation or a cultural one?
2. How do trade routes fit into the pattern of warfare in the Near East?

Lecture Five

The Chariot Revolution

Scope: The Kurgan culture in the steppe region north of the Black and Caspian seas domesticated the horse around 4000 B.C. Too small to ride, these horses were used to pull chariots with spoked wheels and a lightweight fighting platform. With the addition of the composite bow around 2000 B.C., the chariot became a world-transforming weapons system. Using chariots, Indo-European peoples spread to the west, east, and south. This expansion led to the rise of the steppe cultures of Central Asia, as well as a series of dramatic invasions into the Near East and Europe, India, and China. The characteristics of this weapons system created chariot nobilities with similar features throughout the Old World, from Shang China and Aryan India to Mycenaean Greece. Only the wealthiest states, such as New Kingdom Egypt, could afford a professional chariot army.

Outline

- I. Before discussing the chariot revolution, I need to clarify two things: my use of the terms “core” and “margin” and the whole idea of military revolutions.
 - A. World historians usually use “core” and “margin” to describe the relationship between two geographic regions.
 1. I am using the terms in a broader sense, defined by the use of military technologies and the subsequent sociological changes that accompanied these technologies.
 2. The core region ultimately covered a vast expanse of land running across the breadth of the Old World.
 - B. In these lectures, I refer to a whole series of military revolutions: the chariot, the sword, the horse, gunpowder, and so on.
 1. Some historians disagree with me, claiming that these changes were the result of slow development, not revolution.
 2. One factor that tends to obscure the dramatic nature of weapons innovation is that they tend to go through a two-stage process.
 3. In its original version, the weapon is important enough to be adopted but does not significantly change warfare. Then, with an addition or innovation, the weapon becomes world transforming.
 4. We will discuss this process with the chariot and see the same process occur with other military innovations, such as gunpowder.
- II. Now, let’s get down to brass tacks—or in this case, to wooden spokes.
 - A. We have already met the original chariots: the heavy Sumerian versions, with four solid wheels and drawn by wild donkeys.
 1. The relationship of the original Sumerian chariot to the new two-wheeled, horse-drawn chariot is a controversial topic among military historians.
 2. Some say that the new chariot developed in Mesopotamia out of the older Sumerian version and then spread into the steppes.
 3. Others contend that the new chariot was developed in the steppe region, where the horse had first been domesticated.
 - B. The most significant innovation of the new chariot was the use of horses to draw it.
 1. Archaeological evidence has established that the horse was first domesticated around 4000 B.C. in what is now southern Ukraine and Kazakhstan.
 2. Horses were probably used for food, for milk, and for breeding mules for pack animals.
 3. The advantage of the light, horse-drawn chariot to pastoralism is obvious.
 4. The addition of the bit made control and maneuvering much more effective.
 - C. This new chariot had a dramatic effect on the steppe cultures.
 1. The vast grasslands between eastern Europe and western China became an area of prime activity for herd animals.
 2. The chariot and bow combination was not only useful for guarding herds and hunting—it also made raiding other tribes easier.
 3. Stealing cattle and horses must have been a common way of supplementing income, and soon it must have become apparent that one could easily defeat or terrorize agricultural villages into submission.
 4. The steppe pastoralists had a major military advantage: A much higher percentage of their population could be used in war.

III. The rapid spread of chariot technology is closely associated with the Indo-European language family.

- A.** It has been recently argued that the region in which the horse was first domesticated was also the homeland of the earliest Indo-European language, called Proto-Indo-European.
 - 1. There is a great deal of historical resistance to the idea of Indo-European warriors sweeping across the core in their chariots, but there is increasing evidence that this is exactly what happened.
 - 2. Whatever the reason, it is clear that for the next 2,000 years, the steppes were dominated by Indo-European-speaking people.
- B.** Chariot-riding peoples moving into Neolithic regions often resulted in a kick-starting of civilization, usually accompanied by intensive warfare. A good example of this is the impact of the chariot on China.
 - 1. In 2000 B.C., when the Near East was already part of a literate Bronze Age culture, China still lacked writing and was a Neolithic village culture.
 - 2. Though Chinese tradition maintains that the rise of the Shang dynasty was an indigenous affair, the introduction of the chariot from the West does coincide with the first archaeological evidence of the Shang.
 - 3. In the Shang period, we find a dramatic increase in the size of settlements, many with stamped-earth walls.
 - 4. Shang culture was quite warlike and expansionist from the beginning. We see how war not only established the first Chinese dynasty but also served to spread it.
- C.** China, of course, was not the only Neolithic region to be affected by chariot technology.
 - 1. There are many rock carvings depicting horse-drawn chariots throughout the Sahara.
 - 2. The chariot also moved into Europe, but there are many questions about exactly how—and how dramatically—it impacted the region.

IV. The period of 2200 to 1900 B.C. was one of tremendous conflict in the Near East. There are many theories about what caused these upheavals.

- A.** Archaeologists often object to models of invasion as the cause of political and social change, as they often cannot find archaeological evidence for it.
 - 1. But the invasion of pastoralists into urban areas often took the form of gradually increasing raids.
 - 2. Additionally, even sudden conquests often leave no archaeological trace, a fact that is not always sufficiently appreciated.
 - 3. The 3rd-millennium empires of Egypt and Mesopotamia may have been victims of their own success. As their populations thrived, the chances of internal uprisings increased.
 - 4. By 1900 B.C., we know that there were a number of small Amorite kingdoms established in Mesopotamia.
 - 5. The relationship of the chariot to the spread of the Amorites is unclear. We do know that the Amorite dynasty of Babylon used the chariot extensively.
- B.** The Hittites and Hurrians both used chariots to great advantage in establishing their empires.
 - 1. To the west, we find chariot states rising both in mainland Greece and on the islands of the Mediterranean.
 - 2. These new Near Eastern states were characterized by powerful monarchs with centralized bureaucracies, working out of large palace complexes.
 - 3. Another feature of these Near Eastern empires was the so-called chariot nobility. Since chariots were such an expensive weapons system, kings would give land to nobles in exchange for chariots.
 - 4. One such empire was New Kingdom Egypt. A new motif developed in Egyptian art during this period: the king riding in his chariot and firing his bow, trampling his enemies.
- C.** I have left the discussion of the most classic example of the invasion of Indo-European chariot warriors until last. This is the movement of the people known as Aryans into India, which is recorded in the sacred Hindu texts, the Vedas.
 - 1. Though most archaeologists and ancient historians have abandoned the chariot invasion as the cause of the decline in the Indus Valley, I have not—for very good reasons.
 - 2. The dating of the decline of the Indus Valley civilization is perfectly compatible with an Aryan invasion. A similar invasion occurred simultaneously in a region near India.
 - 3. Most significantly, we have the development in all these regions of a warrior caste; this is almost certainly the chariot nobility that we have seen elsewhere.

Suggested Reading:

Anthony, *The Horse, the Wheel, and Language*.

Cotterell, *The Chariot*.

Gnirs, "Ancient Egypt."

Questions to Consider:

1. How did the chariot make possible the steppe cultures?
2. What kind of impact did the chariot have on agricultural societies?

Lecture Six

The Sword Revolution

Scope: The role of iron weapons in the collapse of the Near Eastern Bronze Age cultures has long been debated. The traditional view that iron was an important factor has been rejected by historians but needs to be reconsidered. This period, from about 1200 to 800 B.C., is very difficult to reconstruct due to the paucity of written sources and the complexity of those that do survive, such as the Bible and the Homeric poems. The introduction of a new type of sword, the Naue II sword, was probably a major factor. The sword and ironworking generally spread together throughout the core.

Outline

- I. In this lecture, we look at another revolution: the sword revolution. The sword has a long history as a bronze weapon, but it is connected to the adoption of a metal that would transform history—iron.
 - A. The term Iron Age, like Bronze Age, is a relative one. It simply refers to the time after which a particular culture first used iron. It differs, of course, from place to place.
 - 1. Early archaeologists often explained the replacement of bronze by iron in military terms. This theory was discredited by a number of arguments.
 - 2. The introduction of iron seemed too early: The palace-centered cultures were at their height in 1500 B.C., when the Hittites first used iron.
 - 3. In addition, the use of iron was very rare for hundreds of years after its discovery.
 - 4. Finally, it was doubted that iron weapons were really more effective than bronze ones. Most armies continued to use spears and arrows, in which bronze or even stone points are not much less lethal than iron ones.
 - 5. A consensus has emerged that it was the downfall of the Bronze Age empires that led to the Iron Age, not vice versa.
 - B. To explain the way in which iron weapons replaced bronze, we need to explain the differences between the metallurgy of bronze and iron.
 - 1. Bronze, a combination of copper and tin, was an improvement over copper alone, but its ingredients were rare and it was too soft to make truly effective weapons.
 - 2. Bronze did improve some weapons, such as the dagger. But bronze swords lacked tensile strength in lengths longer than three feet.
 - 3. Iron is considerably more difficult to produce than bronze. It requires high temperatures and an enormous amount of strength and skill.
 - C. From the point of view of weapons technology, the real Iron Age occurred in the 1st millennium B.C., not the 2nd. What happened around 1200 B.C. that might explain the change from bronze to iron? Quite a lot, and most of it has to do with war.
 - 1. So many of the Near East empires disappeared during this time period that one historian calls it simply the Catastrophe.
 - 2. This period of history, which runs from about 1200 B.C. to about 900 B.C., is notoriously complex and puzzling. The destruction that occurred brought much of our written record to an end.
 - 3. The few contemporary sources that we do have, mainly Egyptian, speak of an invasion by the so-called Sea Peoples.
- II. Let me say a few words about the Bible as a military historical source.
 - A. In this lecture we will focus on the books from Genesis through 2 Kings.
 - 1. These books are indeed historical works, which is not to say that they are necessarily historically accurate but that they were intended to be a history of the Jewish people from Creation to the destruction of the kingdom of Judah in the 6th century B.C.
 - 2. It is very important to understand that the earliest part of this history, the Five Books of Moses, was the last to be written.
 - 3. The books that contain the oldest and most relevant military material are the Books of Judges, 1 and 2 Samuel, and the Books of Kings.
 - B. The stories of the *Iliad* and the *Odyssey* may also go back to the period of these conflicts.
 - 1. The texts were probably first written down in the 7th century B.C. and were based on some oral tradition that had developed over the previous century or more.
 - 2. It has been established that the texts that we have contain elements from the Mycenaean period, from the Dark Ages, and from Homer's own time.

- C. Despite the paucity of our sources, it is clear that there were a number of major invasions, or migrations, in the 13th and 12th centuries B.C.
 1. The first was a series of attacks by the Sea Peoples that destroyed the Hittite Empire, probably destroyed the Hurrian Empire, and demolished most of the Canaanite city-states.
 2. At the same time that the Hittites were destroyed, the Mycenaean cities in Greece were sacked, probably by fellow Greek speakers, in the Dorian invasion.
 3. Another invasion we can identify is that of the Arameans, who established a number of kingdoms in Syria and probably brought about the end of the Middle Assyrian Empire.
 4. One of the most interesting and enigmatic features of this period is the people called Habiru or Apiru. Some scholars have seen a connection between the Habiru and the biblical Hebrews, though there are many difficulties with this connection.
 5. We shall discuss the Hebrews later, but we should note that the earliest-written portions of the Bible are filled with stories of wars and conquests.

III. While these invasions are very complicated from an ethnic and political perspective, they may be quite simple from a military one.

- A. Historian Robert Drews has suggested that the reason for this massive change was the development of a new type of bronze sword in the region of Austria and Hungary around 1450 B.C.
 1. Drews calls this the Naue II sword, a name that has caught on among military historians. It is so-called because it was identified by a German archaeologist named Julius Naue.
 2. Naue actually called it the *Griffzungenschwert*, which literally translates to “grip-tongue sword.” Other military historians have called it the short slashing sword, which does not really describe the revolutionary feature of this weapon.
 3. I will call it the “tongue-hilt sword,” which is a bit awkward but gets the message across.
 4. The improvement in the tongue-hilt sword is relatively simple: The blade and hilt were cast as a single piece, with the hilt sticking out from the rear of the blade like a tongue.
 5. For hundreds of years after their invention, tongue-hilt swords were made of bronze, but the all-in-one casting made them a big improvement over previous swords.
- B. Drew’s theory is that the use of this tongue-hilt sword made possible the defeat of chariot forces. There are some arguments about this, but it is clear that the sword allowed for a new kind of fighting, close and personal.
- C. The success of the tongue-hilt sword may have had another effect. This new type of weapon could be considerably improved by replacing bronze with iron.
 1. Iron has much higher strength and tensility, making an iron sword more effective and durable than a bronze one.
 2. Iron swords could be made longer, leading to the introduction of the long sword.
 3. Not only iron weapons but iron implements of all kinds became more common.
 4. Iron is one of the first technologies where we see the increase of scale bringing down costs. Iron soon became significantly cheaper than bronze.
- D. As complicated as the Iron Age was in the Near East, it was even more so in places like India, Europe, and China. But scholars can use the same model that we have developed here to look at the Iron Age in those civilizations.
 1. One factor that might explain why the Iron Age developed in regional fits and starts is one that often appears in military revolutions. The adoption of a new weapon is often done at the expense of the military caste that developed based on previous technology.
 2. It is not inconceivable that the spread of the iron sword and its accompanying technologies was consciously blocked by the elites who would be threatened by its adoption.
 3. There is one place where we know that ironworking was not adopted in response to the iron sword. The Bantu culture used iron, but only for spearheads.
 4. The Bantu culture is the exception, however. In most places, iron and the sword were closely connected.

Suggested Reading:

Drews, *The End of the Bronze Age*.

Sanders, *The Sea Peoples*.

Questions to Consider:

1. How does the tongue-hilt sword help explain the development of the Western Iron Age?
2. Could the same model be applied to the use of iron in other regions?

Lecture Seven

Steppes, Standing Armies, and Silver Trade

Scope: Cavalry transformed steppe cultures, such as the Scythians and Cimmerians, making them more powerful and dangerous to settled regions. The use of mounted warriors spread east to the Hsiung-nu and Yuēh-Chi peoples, and ultimately to East Asia. Cavalry gradually replaced chariots throughout the remaining Old World. In the 9th and 8th centuries B.C., the Assyrians developed the most sophisticated and expensive military system yet. They adopted cavalry, mainly horse archers, which were made possible by the breeding of larger horses. The greater cost led to taxation based on silver and a provincial structure to collect it, both of which had long-term effects.

Outline

- I. The story of the early development of cavalry is somewhat unclear.
 - A. It seems likely that the use of cavalry began in the Near East and spread to the western steppes, but the reverse is certainly possible.
 - 1. Our first illustration of a horse being ridden comes from Egypt and dates from the 14th century B.C.
 - 2. The first sign of cavalry appeared in Assyria around 900 B.C. This cavalry functioned like a chariot corps without the chariot.
 - 3. Eventually, horsemen learned to fire while riding, and this led to the development of a new type of soldier: the horse archer. The lancer did not develop in Assyria for another century.
 - B. We turn now to the effect that cavalry had on the peoples of the steppes.
 - 1. The tribe was the basic political and military unit of nomadic pastoralists, ranging in size from a few hundred to tens of thousands.
 - 2. Tribes could also form larger units, either in temporary alliances or as more permanent confederations. Confederations sometimes grew large enough to be referred to as kingdoms or even empires.
 - 3. Tribes were divided into clans organized around kinship.
 - 4. Steppe armies were made up almost entirely of cavalry.
 - 5. From an early period, we find the use of decimal organization: units of tens, hundreds, thousands, and eventually ten thousands.
 - 6. The steppe warriors became highly skilled as horse archers and developed the ability to shoot over the horse's back.
 - 7. With some minor exceptions, it is only among the steppe peoples that we find women commonly fighting alongside men. This no doubt derives from the fact that women, like men, were skilled riders and therefore highly valued as warriors.
 - C. Though there was little sense of land ownership in the steppe culture, territorial rights were important to establish grazing land.
 - 1. The domestication of the Bactrian camel allowed for the development of the Central Asian trade routes, which steppe people routinely raided as a source of income.
 - 2. To supplement their incomes, tribes or clans would serve as allies or mercenaries in the armies of more settled peoples.
 - 3. As the market for warhorses grew, the breeding of horses became another important economic factor in the steppes.
- II. In the 1st millennium B.C., most of the steppe people were still Indo-Europeans.
 - A. One branch, the Iranian-speaking tribes, dominated the western and central steppes, from Ukraine to central China.
 - 1. A group of related Iranian tribes migrated into what is now Iran and Afghanistan. These were the Persians, the Medes, the Parthians, the Sogdians, and the Bactrians.
 - 2. Other confederations of Iranian-speaking tribes started to raid into the Near East and eastern Europe in the 8th century B.C. These tribes included the Cimmerians and the Scythians.
 - 3. To the east of the Scythians, we find other Indo-European steppe people, such as the Samartians and the Kushans (known by the Chinese as the Yuēh-Chi).
 - B. There was another language family that was present in the steppes in this period: Altaic.
 - C. There is debate about the date of the domestication of the dromedary, or one-humped camel, in Arabia.
 - 1. There is some evidence for its domestication around 2500 B.C., but its use did not become widespread until after 1200 B.C.
 - 2. Unlike the Bactrian camel, the dromedary was used as a military mount. Eventually, desert nomads became skilled at both riding and shooting on dromedaries.

III. Around the 9th century B.C., there was a resurgence of Assyrian power known as the Neo-Assyrian Empire.

- A.** Although cavalry was used, the Assyrian army was still dominated by a traditional chariot nobility backed by an infantry force.
 - 1. One factor in their success was their openness to innovation and their willingness to incorporate foreign military ideas.
 - 2. The Assyrians also used military intelligence effectively. Careful daily records were kept during campaigns and used partly for intelligence purposes.
 - 3. In addition to their army, the Assyrians used propaganda, presenting themselves as terrifying and irresistible. They used terror and cruelty as a systematic method of policy.
- B.** Around 750 B.C., we find a major change in Assyria. Tiglath-Pileser III reformed both the Assyrian state and its military.
 - 1. The power of the nobles was repressed, and the chariot force was replaced by a cavalry force made up of archers and lancers.
 - 2. The most important Assyrian innovation was the establishment of a standing army. This army consisted of settler soldiers, both Assyrian and foreign, all armed in a standard manner. This idea was subsequently adopted by Persia, Macedonia, Greece, Rome, and possibly India.
 - 3. The Assyrians also introduced permanent arsenals on the frontiers, where weapons and equipment could be stored.
- C.** Assyria expanded its territories and organized them into provinces. These provinces remained the administrative units in the Near East through Roman times. The most important function of the province was to collect taxes, which were paid in silver.
 - 1. The military and economic need for silver had an important effect on the Near East during this period.
 - 2. Recent discoveries have proven that the Phoenicians set up colonies in the Mediterranean not to flee the Assyrians but to profit by providing silver to the Assyrian economy.
 - 3. This silver trade was carried out in sailing ships, and soon Phoenician settlements were established as far west as Spain.
 - 4. To protect their trade ships from pirates, the Phoenicians developed a new type of warship, the bireme. This was the first ship designed and used solely as a warship.

Suggested Reading:

DiMarco, *War Horse*.

Drews, *Early Riders*.

Postgate, *Taxation and Conscription*.

Questions to Consider:

- 1. How did the adoption of cavalry impact the steppe cultures?
- 2. What were the long-term effects of the Neo-Assyrian military reform in the 8th century B.C.?

Lecture Eight

Pirates and Hoplites

Scope: The rise of the Greek city-state and its institutions may well have been connected to the “Catastrophe” we discussed before. The Greeks shared some characteristics of the Sea Peoples, and piracy was an important part of their culture. They also, however, had some elements of steppe cultures. This combination, along with the rise of the Assyrians and Phoenician colonization, may have led to the rise of both the city-state and the characteristic Greek hoplite warfare.

Outline

- I. In this lecture, we see how the wealth of the Phoenician trading colonies helped lead to the rise of a new and distinctive type of political unit: the Greek city-state.
 - A. The city-state was such an influential phenomenon, both in its own time and in modern political theory, that its origins have long been a matter of investigation and debate among scholars.
 1. Scholarship has focused on the so-called Dorian invasion, which occurred around 1000 B.C.
 2. The timing of the Dorian invasion is very suggestive: The era between 1200 and 1000 B.C. was not only the time of the Sea Peoples, but also of the sword revolution.
 3. Indeed, Robert Drews included the Dorian invasion in his discussion of the Catastrophe that brought down the palace-centered empires.
 - B. There is evidence of similarities between the Greeks and the Sea Peoples.
 1. There is a great deal of evidence of the early Greek connection to the sea, and not as peaceful fishermen. The English word “pirate” comes from the Greek word for pirate, and both the *Iliad* and the *Odyssey* illustrate the Greeks in this role.
 2. They used the *pentekonter*, the 50-oared raiding ship mentioned in Homer’s poems and other sources. These ships seem very similar to those illustrated in Egyptian reliefs of their fight with the Sea Peoples.
 3. In addition, some scholars have argued that the names of certain tribes of Sea Peoples correspond to the ethnic groups and names of early Greek peoples, such as the Achaeans (the name for Greeks used by Homer).
 - C. However, there are ways in which early Greek culture sharply differed from that of the Sea Peoples.
 1. Early Greek culture is in many ways reminiscent of steppe culture. This is especially evident in their use of mercenary soldiers and in their adoption of Assyrian military practices.
 2. There also seems to be some military continuity from the earlier Mycenaean civilization. It has been suggested that the Ionians were directly descended from the Mycenaean Greeks.
 3. Perhaps the best way of understanding Greek culture, and the rise of the polis, is as a result of a mix of military cultures.
- II. Before we discuss the rise of the city-state, we have to describe what a city-state was and what made it distinctive.
 - A. The city-state, or polis, is distinguished by a number of social and political elements: the idea of citizenship; the existence of an assembly, an aristocratic council, and elected magistrates.
 1. City-states were originally ruled by kings.
 2. City-states generally lacked a class of hereditary priests; sacrifices and other rituals were carried out by magistrates elected from among the aristocrats.
 3. Military command was also held exclusively by aristocrats.
 4. Much of a city-state’s land was worked by individual families that owned small farms. This “small-holding” was one of the most distinctive economic features of the Greek city-state.
 5. The existence of a class of free citizens also seems to be a very early institution in the polis.
 6. An empty gathering place, called the agora, stood at the center of the polis, replacing the temple or palace common in other ancient cities.
 - B. What were the origins of these distinctive institutions in the Greek city-states?
 1. The aristocratic clans had much in common with similar institutions in the steppe cultures.
 2. Though the common people in Greek society were often treated with contempt by the aristocracy, they had a relatively high economic position based on their ownership of farms.
 3. Wealth brought home by Greeks who served as pirates and mercenaries was often invested in land and trading expeditions.
 4. Piracy was quite important in early Greek society. After the Assyrians established control over trade routes in the Near East, the Greeks turned their raids toward Phoenician trading vessels.
 5. Eventually, piracy and trading mixed, with trading gradually becoming more profitable than plundering.

6. In the 8th century B.C., the Greeks began establishing colonies to compete with Phoenician trading. Unlike the Phoenician settlements, these colonies were politically independent.
- C. The Greek practice of serving as mercenaries for wealthier states may have prompted the development of a system of coinage.
1. The Greeks found coinage highly useful. In addition to paying mercenaries, it could also be used to divide loot and trading profits more easily.
 2. Coinage also made it easier for individuals to collect the wealth necessary to buy arms and armor.
- III. We do not know exactly when the Greeks adopted the hoplite style of military organization, but it probably occurred before 650 B.C., during the development of the city-states.
- A. Greek arms and armor were probably borrowed from the Assyrians.
1. Greek hoplites carried a large round shield called the *hoplon* and often wore breastplates, helmets, and greaves.
 2. Hoplites did not fight as individuals. They were organized into phalanxes, which could be hundreds or even thousands of men wide.
- B. This shoulder-to-shoulder phalanx method created a new kind of military ideology, one that was incompatible with the aristocratic ideologies we have seen so far.
1. In this ideology, all citizens are equal, whether aristocratic or not, since they all stand together in the line of battle.
 2. In hoplite warfare, loyalty is not to one's class but to one's city-state.
 3. The most interesting and historically significant element of hoplite warfare was its method of recruitment. If one was wealthy enough to buy armor, one was required to buy it and to serve when called upon. Citizens without wealth were banned from service along with slaves and noncitizens.
 4. This recruitment method allowed city-states to field large armies relative to their size and wealth.
- C. While the origins of hoplite warfare remain a mystery, let me suggest one avenue of exploration: Greek piracy and trading.
1. Greek piracy involved raiding coastal towns and villages, where the heavy armor and tight formation of hoplite warfare could be very effective.
 2. The hoplite method of recruiting may have developed as an efficient way of gathering soldiers from Greek colonies, or it may have been an adaptation of the Assyrian soldier-settler system.
 3. Though the Near Eastern kingdoms did not adopt the hoplite system, it was absorbed by the Etruscans, the Latins, and to some extent the Phoenician colonies.

Suggested Reading:

Van Wees, *Status Warriors*.

Wallinga, *Ships and Sea-Power*.

Questions to Consider:

1. What were the military conditions in Greece that led to the rise of the city-state?
2. Why did the Greeks develop the distinctive hoplite system of warfare?

Lecture Nine

Great Empires of West and East

Scope: After the fall of the Assyrian Empire, a number of independent states developed: The Median Empire, with their Scythian allies, had a steppe-style government. Babylonia took over much of the urban regions and used Assyrian administration and settler soldiers, as did Egypt under the Saite dynasty. Anatolia was controlled by Lydia, which pioneered the use of coinage to pay mercenaries. All these kingdoms were incorporated into the Persian Empire in the 6th century B.C. The Persians successfully combined both the Assyrian and the steppe military systems. Steppe and urban systems were also combined in India and China, and we find the rise of cavalry in West Africa as well. The use of coinage or its equivalent differed in various areas but was an important element in supporting armies.

Outline

- I. Before and after the fall of the Assyrian Empire, the Near East suffered a series of devastating invasions of steppe people.
 - A. The 50 years after the fall of Nineveh were ones of very intense fighting throughout the region.
 1. The Scythians did not just raid; they migrated into and occupied northern Iran and became important allies of the Medes.
 2. The Babylonians took over much of what had been the Assyrian Empire: all of Mesopotamia and Syria, as well as Phoenicia and the provinces that had been Israel.
 3. The Babylonians adopted the Assyrian use of settler soldiers.
 - B. Egypt had only recently been incorporated into the Assyrian Empire, and after the fall of Nineveh it again became an independent nation under the Saite dynasty.
 1. According to Herodotus, who visited the country well over a century later, the Egyptians had a hereditary military class.
 2. We happen to know about two foreign settler-soldier units as well, a settlement of Greek soldiers in the north and one of Jewish soldiers in the south.
 3. The final kingdom was Lydia, which seems to have had an army similar to the prehoplite Greeks. Their control of gold mines made them very wealthy, and they used at least some of this money to supplement their forces with mercenaries.
 - C. Beginning around 560 B.C., an imperial power arose that would reunite the Near East and extend its power into Europe and India. This was the Persian Empire.
 1. Its founder, Cyrus the Great, conquered Media, Babylonia, and Lydia. His son added Egypt to the empire.
 2. A later king, Darius I, created the highly effective Persian imperial system, which ruled the western core for the next 200 years.
 3. Best known for his unsuccessful attack on Greece, Darius led a series of campaigns that pacified the northern frontier and ended the threat of the steppe peoples.
- II. Darius and his successors instituted a number of reforms, both in the military and in the administration that supported it.
 - A. The Persians left the Assyrian provincial system in place and did not insist on standardization among their territories.
 1. The Persians generally allowed members of the local elite to govern the provinces.
 2. There were two types of military forces in the Persian Empire. One was the levy—locals who were conscripted into military service either to repel a local attack or to take part in an imperial expedition.
 3. The real backbone of local defense and of the army in general was the settler soldiers.
 - B. On top of the Assyrian-style provincial administration, the Persians also successfully incorporated a steppe nobility, with its military advantages.
 1. The Persian king and the royal government were not placed in an urban center; rather, they migrated through a series of palace complexes.
 2. Persian nobles also generally did not live in the cities. They were known for their rural villas, where they could live in luxury and maintain their horsemanship.
 3. The Persians developed a level of government above the province and below the palace, called the satrapy.
 4. The satrap was a kind of steppe chieftain placed over the urban population who commanded local levies and settler soldiers, as well regular Persian infantry units.
 5. The eastern parts of the Persian Empire were also divided into provinces and satrapies, but actual rule was left in the hands of the local steppe peoples.

- C. The Persian system benefited from allowing local autonomy, but central control was maintained in a number of ways.
 - 1. A very important element was the idea of the “king of kings” as a peacemaker, both in rhetoric and reality. He was portrayed to his subjects as a lawgiver and fair arbitrator.
 - 2. The king also sent royal commissioners to take control of localities and employed agents to keep him informed.
 - 3. The Persians retained and improved the Assyrian road and postal systems and introduced a standard system of weights and measurements, all of which fostered trade.
- III. The steppe peoples had not only invaded the West; they had also moved into India and China, with results that were similar to those seen in the Near East.
 - A. India can be seen as part of the same military culture as the western part of the core.
 - 1. The arms and armor were the same: high-quality iron weapons and infantry armed with spears, bows, and swords.
 - 2. The Indians also had cavalry, clearly influenced by the methods of the steppe warriors.
 - 3. We find Indian military units organized as communities or guilds. It is likely that this was the institution of settler soldiers, whether borrowed from the West or developed independently.
 - 4. Toward the end of this period, northern India united under the powerful Nanda Kingdom, which had a large standing army supported by an efficient administration and tax system.
 - B. In China, the Shang dynasty was defeated and replaced by the Chou dynasty sometime around 1000 B.C.
 - 1. The ritual position of the king was inherited from the Shang dynasty, but like the Assyrians, the Chou dynasty was highly militaristic and expansionist.
 - 2. Like many of the earlier Western empires, the Chou instituted a chariot nobility, called the *shih*.
 - 3. Chou armies were organized into units, often decimal, that consisted of both native and foreign troops.
 - 4. The Chou were very effective at expanding their power, establishing military colonies and districts and forming a civilian administration.
 - 5. Villages were reorganized around five-household units, which were collectively responsible for providing taxes and conscripts for the army.
 - 6. This was also the period of the independent development of Chinese coinage.
 - 7. A “coin line” develops, which persists into early modern times. To the west, gold and silver coins are used; to the east they are not.
 - C. Gold and silver coins were also absent in the growing civilization in West Africa, along the Niger River.

Suggested Reading:

Head, *The Achaemenid Persian Army*.

Yates, “Early China.”

Questions to Consider:

- 1. How did the Persians integrate the urban and steppe regions?
- 2. What common elements are seen in all the empires of the core in this period?

Lecture Ten

War and the Rise of Religion

Scope: The new faiths of this period struggled with the moral and ethical dimensions of war. Religious ideas are often ambiguous and contradictory, and they reflect both positive and negative attitudes toward warfare. New ideas of sacrifice and cosmic struggle led to the beginnings of the idea of holy war, and the notion of the war god was one element in the rise of monotheism. On the other hand, war was seen as evil and the one god as a peacemaker. The axial age of new religions and philosophers throughout the core may have been influenced by the dramatic military changes we have been studying. The religions of both the West and the East were affected by military changes.

Outline

- I. From very early on, religions did not have a single attitude toward war; they often included different, ambiguous, and sometimes contradictory views.
 - A. One of the common features of early religions is that gods were anthropomorphic and lacked moral superiority to humans. They fought with each other and with humans.
 1. Most ancient religions were polytheistic. It is interesting to note that in their earliest mythology, Mesopotamia and Egypt did not have a war god per se.
 2. The earliest mythology of the Sumerians was singularly unwarlike, with the gods interacting in a more legalistic fashion.
 3. As cultures in Egypt and Mesopotamia became militarized, more specific, and more positively viewed, war gods appeared.
 4. It is not until 1500 B.C. that we see the first mythologies of war among the gods, such as the Hittite Kumarbi myth, later borrowed into Greek myth.
 - B. An element that most early religions share is sacrifice, both human and animal.
 1. One problem for historians is that illustrations of, or even the reality of, human sacrifice can often be mistaken for warfare.
 2. Most early sacrifice was on the principle of “I give in order that you might give.” A general might promise a large offering, or even a temple, to a god to ensure victory.
 3. The Canaanite religion included human sacrifice, particularly the sacrifice of children. This was a different, more sophisticated, principle of sacrifice: “I give up, that you might give.”
 4. This new definition of sacrifice would eventually lead to the idea of martyrdom, an important element in religious warfare.
 - C. The origin of monotheism is complex and controversial, but theologians note an intermediate stage between polytheism and monotheism called henotheism.
 1. Henotheistic religions acknowledge that other gods exist but recognize one supreme deity in heaven, who rules over all others.
 2. The Assyrians were henotheistic and worshipped the supreme god Assur.
 3. Detailed reports on the army’s progress were written to Assur and deposited in his temple. The idea certainly existed that the expansion of Assyria’s empire was not only sanctioned by Assur but done on his behalf.
- II. It is striking that this was the same time period in which the Hebrew culture was coming under pressure from the Assyrians.
 - A. Dating biblical texts is notoriously difficult, but it is in some of the earliest of the books, dating from the 9th and 8th centuries B.C., that we find the first evidence of Hebrew monotheism.
 1. In these and other early biblical texts, God often functions as a kind of general, directing the children of Israel in their wars.
 2. The Hebrew term *Yahweh Tzaba’ot*, often translated as “Lord of Hosts,” more accurately means “God of War” or “God of the Army.”
 3. This idea may have been influenced by Assyrian portrayals of Assur.
 - B. Of course, the Hebrew religion is not simply a copy of the warlike cult of Assur. From the earliest datable texts of the Bible, an ambiguity about war is apparent.
 1. The prophets Isaiah and Micah predicted the end of war. The prophet Joel, on the other hand, encouraged warfare, exhorting Israel to fight the enemies of God.
 2. These contradictory ideas are found throughout the Bible: On the one hand, God abhors war and loves peace, and on the other hand, believers will triumph in war over nonbelievers.

- C. War represented a special theological problem for monotheistic religions.
 1. In polytheism, war is seen as the earthly reflection of struggles among the gods or as a plague upon humanity sent by the war god.
 2. Monotheistic religions have to explain why one all-powerful god would allow, or even bring, the evil of war.
 3. The idea that war is a punishment for a people's collective sin is a recurring theme among the prophets and an influential notion even today.

III. Around the same time the Hebrew prophets were developing the idea of monotheism (c. 800 to 500 B.C.), there were a number of other religious and philosophical traditions developing across the Eurasian core.

- A. The German philosopher Karl Jaspers coined the term "axial age" to refer to the period in which Greek Platonism, Judaism, Zoroastrianism, Buddhism, Confucianism, and Taoism arose.
 1. Jaspers thought the various societies involved in the axial age did not have contact with each other. He explained the similarities in these movements as a sociological response to an increase in warfare.
 2. As we have seen, there was indeed considerable connection between the western and eastern parts of the core in 800 B.C.
 3. In the chariot age, the king was not only an important military and political figure but also the center of religious ritual.
 4. Many axial age ideas involve the rejection of older priesthods and the introduction of a new, more individualistic faith concerned with virtue.
 5. The dramatic military changes of the period and the wars involving the steppe people put the axial age theory into context and support its basic premise.
- B. While similarities exist, there are also fundamental differences between the Western and Eastern religious traditions. A sort of "soul line" exists, one whose border has ebbed and flowed over time but is nonetheless evident even today.
 1. Although these religions have come to define "West" and "East," they did not originate at the extremes of the core and move inward. Instead, they developed near its center and moved outward.
 2. Western monotheism (e.g., in Judaism, Christianity, and Islam) is characterized by the notions of an almighty God, an eternal human soul, an afterlife of reward or punishment, and a powerful and evil counter god.
 3. Zoroastrianism, the Iranian faith founded by Zarathustra, introduced the most common elements of Western religions, including the idea of the cosmic battle between the forces of good (led by a savior born of a virgin) and the forces of evil.
- C. To the east of the soul line, we see the Eastern religious tradition exemplified by Hinduism and Buddhism.
 1. In this tradition, souls are constantly reborn on a higher or lower level depending on one's actions (karma) and adherence to the right path of life (dharma) in a process known as samsara.
 2. Various traditions have either many gods, one god, or no god, but they all have spiritual beings, either bad ones and good ones.
 3. An important Eastern belief is that everything we perceive is ultimately an illusion. It is the recognition of the unreality of the universe that is key to achieving nirvana.
 4. Hinduism evolved as a mixture of the native Indus Valley tradition and the religion of the chariot-riding Aryan steppe people who conquered India between 1500 and 1000 B.C.
 5. With the development of Hinduism, the high status of the Aryan warrior caste, the Kshatriyas, was replaced by the priestly class, the Brahmins.
- D. To some extent, Buddhism developed as a reaction to the religious control of the Brahmins in Hinduism.
 1. Though Siddhartha Gautama rejected the life of warfare, there is evidence of the influence of military ideas in early Buddhist thought and organization.
 2. One example is the word "sangha," the name for the original community of Buddhists that became the term for a community of monks. As we saw in the previous lecture, sangha referred to communities of settler soldiers in India.
 3. In the earliest Buddhist texts, called the Pali Canon, there are many references to the army. Military discipline is used in the Pali Canon as a metaphor for dharma.
 4. Like the Western traditions, Eastern religions struggled with the morality—and to some extent the reality—of war.

Suggested Reading:

Kang, *Divine War*.

Niditch, *War in the Hebrew Bible*.

Questions to Consider:

1. What is the role of the war god in the development of monotheism?
2. How is the problem of war dealt differently in the Eastern and Western religious traditions?

Lecture Eleven

The Greek Way of War

Scope: The hoplite class resented aristocratic privilege, and tyrants overthrew many aristocratic oligarchies on its behalf. In Athens, the reforms of Solon failed to stop a tyranny. When this was overthrown, a new type of constitution—the democracy—was established. Three groups—the aristocrats, the hoplite class, and the landless poor—vied for political power in democratic Athens. In Sparta, a highly militarized culture developed in order to prevent a hoplite takeover. Greeks aristocrats had developed means of passing on military culture, such as poetry, athletics, and higher learning. These were adopted by the hoplite class, with important effects on Greek culture, but both philosophy and history were dominated by aristocrats. The Greeks developed distinctive military features, such as the homosexual relationship between older and younger men.

Outline

- I. The empires of the Near East did not adopt the hoplite system, because it held the potential for revolt.
 - A. It is not clear why the aristocratic class of Greeks did so, but they must have considered the military advantage worth the risk of social unrest.
 - 1. As the hoplite class grew wealthier, they became increasingly dissatisfied. They were doing the fighting but were barred from military command, not to mention religious and political posts.
 - 2. A special cause of complaint was the court system, which favored the aristocracy.
 - 3. In the 7th century B.C., revolts against the aristocracy broke out all over the Greek world. Tyrants, acting on behalf of the hoplites, replaced many aristocratic oligarchies.
 - B. The development of tyranny into democracy is complicated. We will begin by looking at the city-state about which we know the most: Athens.
 - 1. In the 7th century B.C., Athens was ruled by an aristocratic oligarchy, but around 594 B.C., frightened by the success of tyrants in other city-states, the city's rulers appointed an aristocrat named Solon to create a constitution that would maintain aristocratic power and prevent revolution.
 - 2. Solon created four wealth classes. He only gave real power to the highest class, which was dominated by rich aristocrats.
 - 3. He replaced Athens's kinship-based tribes with new artificial tribes, with the primary purpose of providing soldiers to the army.
 - 4. Solon's reforms did not solve the basic social problem: Athens relied on the propertied classes for military service without giving them any power within the society.
 - C. In 546 B.C., tyranny came to Athens in the form of Peisistratus.
 - 1. He held sole power and introduced many reforms that benefited the hoplite class.
 - 2. He abolished serfdom in Athens and confiscated land from the aristocrats to distribute to landless Athenians, giving them enough property to become hoplites.
 - 3. Under Peisistratus and his sons, the propertied classes became larger and more self-confident.
- II. Around 510 B.C., a group of aristocrats supported by the hoplite army overthrew the tyranny in Athens.
 - A. Instead of reinstating the aristocratic oligarchy, the Athenians replaced tyranny with a new form of government: democracy.
 - 1. Athenian democracy differed in many respects from our own: It was direct, not representative. Most leaders were chosen by lot, not by election.
 - 2. While most sources speak of two parties in Athens—the aristocratic (or oligarchic) party and the democratic (or popular) party—there were actually three groups competing for power: the wealthy, landowning aristocrats; the propertied classes, who generally were merchants or craftsmen; and the poor, who worked for wages.
 - 3. In 411 B.C., the aristocrats seized control and reestablished a brief oligarchy. The democratic government was only restored by force of arms.
 - B. To understand the growing power of the landless poor in Athens, we have to take a look at the change in naval warfare.
 - 1. Almost every city-state had at least a trireme or two, and the larger ones (like Athens) maintained permanent fleets of warships.
 - 2. The ships were paid for by the wealthy and rowed by the poor.
 - 3. The Athenian fleet was vital in the rise of Athenian power. It is not surprising, then, that the landless class began demanding more rights and power.

4. By 400 B.C., the Athenians had the most democratic system in the ancient world—and in fact, one might say, the most democratic system that has ever existed.
- C. We should note that democracy did not bring peace. In fact the democratic factions in Athens were often the most imperialistic, a phenomenon we shall see later.
 1. Because political legitimacy could not come from ancestry, it had to come from military success, and that could only come in wartime.
 2. Courage and skill in military affairs became important elements in politics. This led to a new type of democratic leader.
 3. The office of general, or strategos, elected from each tribe became the most important political position in Athens (held most famously by Pericles).
- D. During the same period, Sparta developed a completely different political, social, and military system.
 1. Sparta's militaristic society was probably the result of the tension between the aristocrats and the hoplites.
 2. The Spartan code did not apply to all citizens, only to the Spartiate class—a kind of aristocracy based on elite military training.
 3. The Spartiates were taken from their parents and raised by the state in an especially brutal training program.
 4. Most of the Spartan army, however, was made up of the regular hoplite class.
 5. During the rise of tyranny and democracy, Sparta was a strong supporter of aristocratic oligarchies. This issue certainly contributed to the tensions between Sparta and Athens.
 6. While the origins of the Peloponnesian War are complex, one issue was whether political control should be exercised by the hoplite class through democracy or the aristocratic class through oligarchy. Thus in Greece we find the first ideological wars in history.

III. The struggle between aristocrats and hoplites was played out in the cultural arena as well as in politics.

- A. Aristocrats trained their children for war through epic and lyric poetry, such as that of Homer and Archilochus, and stories told at banquets, called symposia.
 1. The symposium (literally, “drinking party”) was not only a central part of the entertainment of the aristocratic class, but also of the spread of ideas.
 2. The symposium served as a kind of school, in which young aristocrats were taught about military and political leadership through songs, poems, and the experiences of their elders and ancestors.
 3. Painting and sculpture, part of aristocratic culture, often illustrated war and athletic games.
- B. As they gained power, the hoplite class adopted these methods.
 1. Athletic events began to become popular among nonaristocrats, and gymnasias were built where the members of the hoplite class could go exercise.
 2. Nonaristocratic military and political leaders needed a higher education. This was provided by the Sophists.
 3. Socrates, a student of the Sophists, is an example of a supporter of aristocracy who came from the hoplite class. He was a stonemason and had served as a hoplite soldier in many battles.
 4. Socrates believed that most people lacked wisdom and that allowing the ignorant majority to rule over the intelligent minority was foolish.
 5. In the philosophy of Socrates and his student Plato, the world is only a shadow or copy of the real world, the world of ideas. Thus war in the world is only a representation of the idea of war in the higher realm.
 6. Plato built upon Socrates's antidemocratic notions. He believed in the idea of the philosopher king, who would hold absolute power over everyone in the city-state.
 7. Aristotle was more sympathetic to democracy. He saw it as something that needed to be controlled through a mixed constitution.
- C. As the aristocratic class became less important militarily, it turned to scholarship—a process that we will see repeated through time.
 1. This led to a debate over the meaning of the word *arête*, literally “manhood” but increasingly meaning “virtue.”
 2. Greek history writing, a new development, became a means not only of communicating important military ideas but also of debating the value of aristocratic and common military leadership.
 3. Many early historians, such as Thucydides and Xenophon, were aristocrats and had attitudes to democracy that ranged from lukewarm to hostile.
- D. The Greek convention of homosexuality was an important part of aristocratic culture and was probably closely tied to military developments.
 1. The conventional relationship was between an adult man and a youth. The older man was expected to mentor his young lover.
 2. Ritual homosexuality seems to have been a part of the Spartan training system and was present in democratic Athens as well.
 3. Thebes raised an entire unit, the Sacred Band, made up of 150 pairs of lovers.

- E. War was a basic feature of interaction between Greek city-states. Indeed, the Greeks considered war to be the normal state of affairs.
 - 1. Peace was sometimes made, but only temporarily.
 - 2. The Greeks developed rules and conventions for war, which distinguished them from “barbarians.”
 - 3. The distinction that the Greeks made between Greek liberty and foreign barbarism was solidified during the Persian War.

Questions to Consider:

- 1. What were the political effects of the introduction of the hoplite system of warfare into the city-state?
- 2. What were the social effects of the new military class challenging the traditional supremacy of the aristocrats?

Lecture Twelve

An Age of War throughout the Core

Scope: The 5th to 3rd centuries B.C. saw an age of war throughout the core. The Chinese Chou dynasty collapsed into the Warring States period, and in India the warring Janapada states were united into the Nanda dynasty. In the Central Asian steppes, powerful and warlike tribal confederations arose. In the West, the Persian Empire was succeeded by mutually hostile Hellenistic kingdoms and Greek federal states. In the western Mediterranean, there was war between Carthaginians, Etruscans, Greeks, and Celts—and the rise of Rome. Warfare was fed by technological advances in weaponry as well as by economic improvements, and by the spread of writing, which improved administration and military science.

Outline

- I. The fall of the core empires led to a period of intense warfare that I call the age of war.
 - A. Let's briefly survey some of the political changes that led to this period of intense violence.
 1. In the 8th century B.C., invasions from the steppe weakened China's Chou dynasty.
 2. By around 400 B.C., the Chou period had ended, and China entered what is called the Warring States period.
 3. Around the same time, India was entering the so-called Janapada period and was divided into a dozen or more warring states.
 4. In the 5th and 4th centuries B.C., the powerful Nanda dynasty conquered most of the northern part of India. It was the first Indian dynasty ruled by someone outside the hereditary *Kshatriya* warrior class.
 - B. An important development in the age of war was the establishment of a series of powerful tribal confederations in the steppes of eastern Europe and Central Asia.
 1. These included, from west to east, the Scythians, the Sarmatians, the Saka, the Yuëh-Chi, and the Hsiung-nu.
 2. Around 250 B.C., a steppe people called the Parthians took over Persia. The Parthians worked hard to keep Hellenistic kingdoms, and later Rome, from interacting with China directly.
 3. Pastoral steppe people became wealthy through their control of metals, such as iron and gold; their establishment of trade routes; and mercenary service to warring states.
 - C. Although the Greek city-states had briefly unified to defeat the Persian forces in 480 B.C., they continued to fight each other.
 1. The tensions between aristocratic Sparta and democratic Athens intensified in the 5th century B.C., culminating in the Peloponnesian War.
 2. Some historians argue that Athens tried to use an economic boycott as a weapon against Sparta's Peloponnesian League. If true, this was a remarkably sophisticated means of waging war in antiquity.
 3. By the 4th century B.C., the Greek city-states were in a state of almost perpetual war, which led to many of the military and cultural innovations of the period.
- II. By the middle of the 4th century B.C., the Persian Empire itself was on the verge of dissolution.
 - A. The satraps had gained more power, essentially setting up de facto independent states.
 1. Egypt, the wealthiest part of the empire, was in a state of more or less permanent revolt, and the monarchy itself was very shaky.
 2. Between 336 and 323 B.C., Alexander the Great conquered the Persian Empire.
 3. The combination of Near Eastern and Greek economic, political, and military systems had a great impact, both in the Near East and farther east.
 - B. After Alexander's death, his empire splintered into the so-called Hellenistic monarchies. These successor states—the Seleucids, Ptolemies, and Antigonids—were also constantly at war.
 1. Eventually these kingdoms began to break apart, generating even more fighting.
 2. The Greeks formed federal leagues of city-states, such as the Achaean and Aeolian leagues, with a common assembly and army.
 3. The federal leagues gained enough military power to throw off Macedonian rule.
 - C. There was also a lot of fighting in the western part of the core.
 1. Greeks and Carthaginians were fighting over Sicily and the Western trade routes.
 2. In Italy, the Etruscans, Greeks, and Latins (including the Romans) were vying for power.
 3. The Celts were expanding into Spain and northern Italy, even conquering parts of what is now Turkey.

III. What were the factors that led to this period being one of such intense fighting throughout the core?

- A. The increased demand for iron weapons and tools spread the skill of blacksmithing and the opening of more iron mines, lowering the overall cost of iron weapons.
 - 1. An often-overlooked factor is the technological contributions of the Celts, who introduced a more effective sword and a revolutionary type of saddle.
 - 2. During this period, there was much experimentation with new types of warfare. This occurred across the core, but we know the most about the process in the West.
 - 3. By 400 B.C., the cavalry had replaced chariots in most of the western core.
- B. In Bactria, this period saw the rise of a new type of cavalry: the armored horseman, or cataphract.
 - 1. The heavy horses, bred in the Fergana Valley between modern Kazakhstan, Uzbekistan, and Kirghizstan, were large enough not only to carry an armored man but to support armor on the horse as well.
 - 2. The cataphract carried a bow and sword, but his main weapon was the lance. The cataphract was adopted by the steppe people and gradually by the sedentary armies that imitated them, including the kingdom of Chao in China.
- C. In both the western and eastern parts of the core, new types of weapons were developed using torsion, the energy in twisted rope.
 - 1. In around 400 B.C., the ruler of the city-state of Syracuse in Sicily invited engineers from around the Greek world to create a practical torsion weapon. The result was the invention of the catapult and the ballista.
 - 2. Western engineers came up with handheld versions of catapults, called crossbows. Overall, however, torsion artillery remained quite large.
 - 3. China independently invented a more effective crossbow in the 4th century B.C. and also developed a weight-driven siege weapon, the trebuchet.

IV. There had also been many developments in the civilian world during the age of war that were important in improving the ability to wage war.

- A. Greater sophistication in taxation, driven by the needs of larger and more expensive armies, led to larger government.
 - 1. The provincial system was adopted by the Hellenistic kingdoms and systems established in India and China.
 - 2. In the West, coinage spread through conquest and the need to pay armies. China developed a coinage system independently.
 - 3. With the spread of coinage, economic systems improved and higher literacy led to better contract and credit systems—even banks.
 - 4. Trade became increasingly sophisticated, as did shipping. The increase in shipping trade led to the development of war fleets to combat piracy.
 - 5. With the improvement of trade, food began to be transported, allowing large armies to operate over greater distances.
- B. The surge in both trade and military conquests facilitated the spread of writing. This prompted the establishment of official government languages and systems of writing.
 - 1. The Phoenicians lent their alphabetic writing system to both the Greeks and the Aramaeans.
 - 2. In turn, Greek colonization led to the adoption of the Greek version of the Phoenician alphabet by the Etruscans, Romans, Celts, and others.
 - 3. The Persian Empire adopted Aramaic for official purposes, and it was used from Egypt to Afghanistan.
 - 4. In China, an official dialect of Chinese developed, written in the script invented in the Shang dynasty.
- C. Writing allowed for better administration of military forces and better communication of strategies and intelligence.
 - 1. It is during this time that we see the first specialized military manuals.
 - 2. Aeneas Tacticus and Xenophon wrote in Greek.
 - 3. Kautilya's *Arthashastra* appeared in India.
 - 4. The treatises of Sun Tzu and Sun Bin were written in China.

Suggested Reading:

Anderson, *Military Theory and Practice*.

Lloyd, "Philip II and Alexander the Great."

Roth, "War."

Questions to Consider:

- 1. What factors might have led to the series of military innovations across the core?
- 2. What was the effect of the spread of new weapons and ideas about war in the core?

Lecture Thirteen

New Empires and an Armed Peace

Scope: Imperial Rome, Mauryan India, and Han China all utilized professional militaries dominated by infantry forces, which favored central power over local elites. All the empires faced similar problems in balancing control between the center and the provinces, military and civilians, and aristocrats and commoners. Imperial and military power both conquered and co-opted local elites, which fostered assimilation but also provoked resistance among conquered peoples. The Chinese and the Romans built extensive frontier fortifications, both for defense and to control cross-border trade. The development of separate military and civilian elites led to tensions.

Outline

- I. The earliest trend toward centralization during this period was in India.
 - A. By the 4th century B.C., the Nanda dynasty had united much of India.
 1. Chandragupta took advantage of Alexander the Great's invasion of India to found the Mauryan dynasty.
 2. Though there was Greek influence, India was developing its own distinct military culture built on the traditional Indian fourfold model: cavalry, elephants, infantry, and chariots.
 3. Greek sources say the Mauryan army was as large as 600,000, which suggests conscription, but this number may well be exaggerated.
 - B. Chandragupta followed the Jain religion, which allowed him to sideline the power of the Brahmins.
 1. Ironically, one of his closest advisors was a Brahmin named Chanakya, who worked with Chandragupta to create a centralized state that suppressed the power of India's fractious nobles.
 2. There is some question about the relationship between Chanakya and Kautilya, who wrote the Indian political classic *Arthashastra*.
 3. It is clear that Chandragupta created a strong monarchy. Appointed governors ruled provinces, and the army was supported by an efficient tax system.
- II. The unification of China occurred around 220 B.C. The small kingdoms of the Warring States period gave way to the rule of the Ch'in dynasty.
 - A. Traditional historiography portrays the unification of China and political innovations of the Ch'in as the work of one man, the emperor Shih Huang-ti.
 1. A hundred years before Shih Huang-ti, however, Duke Hsiao of Ch'in and his minister Shang Yang transformed Ch'in into a centralized state.
 2. The most important reform was replacing hereditary nobles with military leaders who were promoted according to success on the battlefield.
 3. Shang Yang created the 20 levels of rank, originally military, that later became the levels of the Chinese civil bureaucracy.
 4. The newly developed crossbow made the Ch'in conscript army more effective.
 5. Duke Hsiao and Shang Yang promoted legalism, which emphasized absolute obedience and brutally suppressed Confucianism.
 6. Shih Huang-ti united China but effectively put the Ch'in dynasty under the control of the commanding officer of the army, who ultimately overthrew it.
 - B. Nobles founded most Chinese dynasties, but a peasant named Liu Pang established the Han dynasty.
 1. Liu was first a soldier, then a bandit, and then a military strongman. His military ability and political talent allowed him to defeat the noble generals, suppress peasant uprisings, and create a stable dynasty that would rule China for the next 400 years.
 2. The first Han rulers experimented with a mix of Ch'in dynasty institutions and a return of some power to feudal nobles.
 3. Legalism was abandoned, and many of the early rulers were Taoists.
 4. The early Han emperors also followed a policy of internal stabilization and accommodation with bordering states.
 5. The relationship with the powerful Hsiung-nu was called the *ho ch'in*, or intermarriage policy. Chinese princesses were married to the steppe rulers and tribute sent in exchange for peace.
 6. While the basic structure of the army was not changed, the Han rulers supported the small-holding farms from which the army was conscripted.
 7. Han Wu-ti, the sixth emperor, developed a strong central bureaucracy recruited through civil service exams. A military bureaucracy was also established, and Confucianism was made the state ideology.

- C. Under Han Wu-ti and his successors, the Chinese defeated the Hsiung-nu and established control over the Silk Road, which now linked the eastern and western core.
 - 1. In the 1st century A.D., there were a number of military expeditions westward. One in A.D. 97 reached the Caspian Sea, only a few hundred miles from the Roman Empire.
 - 2. Han China controlled the eastern part of the Silk Road directly and the western half indirectly through client steppe tribes.
 - 3. In addition, the Han extended their power to the south, taking control as far as modern Vietnam.

III. In the West, Rome rose to power through almost constant fighting from 400 to 200 B.C.

- A. The Romans adopted all of the technological advances of the period: stone fortification, torsion artillery, logistics, and hoplite-style recruiting.
 - 1. Though the Romans had a reputation for cruelty, they were also very open about absorbing conquered peoples into their state.
 - 2. The Romans adapted the republican system, normally effective only in city-states, to imperial expansion. The system was based on consensus among the senatorial nobility.
 - 3. Although the assembly held legal authority, the senate actually ruled and functioned as a collective executive, especially in military matters.
- B. War was a major source of income for the senatorial nobles, as the commander of a war was personally responsible for dividing the booty.
 - 1. As argued by William V. Harris, this practice may have delayed the Roman conquests of wealthy Syria and Egypt, since victory in these regions by any one senator would have made him too wealthy and powerful.
 - 2. Roman military power relied heavily on the participation of both Roman citizens and noncitizen allies.
- C. The system of senatorial consensus began to collapse after the Marian reform, named for Gaius Marius.
 - 1. Marius allowed nonpropertied citizens to volunteer for the legions. This led to a professional force loyal to generals and not the senate.
 - 2. A series of military dictatorships and juntas, called triumvirates, culminated in the rise of Julius Caesar. He replaced the Roman aristocracy with loyal military followers.
 - 3. His successor, Augustus Caesar, reorganized both the Roman state and the Roman military into the system that became the principate.

IV. Now we compare some of the features of these three core empires.

- A. These empires were remarkably similar in size.
 - 1. Each was about 5 to 6 million square kilometers (around 3 to 3.25 million square miles), with populations ranging from 50 to 60 million.
 - 2. The similar physical and demographic size of these empires may derive, at least in part, from similar military, political, and economic structures.
- B. Both the Romans and the Chinese placed the bulk of their armies on their frontiers. They also heavily fortified these boundaries.
 - 1. This spared the civilian populations from the army's presence and reduced the possibility of revolt.
 - 2. Perimeter fortifications were not primarily static defenses—they were jumping-off points for offensive operations.
 - 3. Both Roman and Chinese ideology presented borders as between the civilized and the savage, but there was active cross-border trade.
 - 4. Border frontiers controlled smuggling and kept out attackers. Customs duties collected at the borders made the maintenance of large and expensive border garrisons worthwhile.
- C. As the empires stabilized, there was a gradual separation of the military elite from the civilian elite.
 - 1. The military class helped assimilate conquered people, but a division into military and civilian elites led to tensions in all three empires.
 - 2. Civilian elites tended to oppose expansion and support accommodation with bordering enemies.
 - 3. The military elite generally supported expansion, which gave them the opportunity to gain not only prestige but also plunder.
 - 4. The civilian and military elites differed in ideology as well. Terms that had previously meant military courage, such as the Latin *virtus* and the Chinese *shih*, were reinterpreted to mean civic virtue.
 - 5. There were some pacifist ideologies, such as Jainism in India or Mohism in China, and warfare was increasingly seen as something to be avoided.

Suggested Reading:

Campbell, *War and Society in Imperial Rome*.

Gommans and Kolff, *Warfare and Weaponry in South Asia*.

Loewe, "The Campaigns of Han Wu-Ti."

Yates, "Early China."

Questions to Consider:

1. How can we explain the similarity in size and population of the three empires?
2. What were the common military and administrative systems used in the core?

Lecture Fourteen

Monotheisms and Militaries

Scope: The great empires of the core adapted traditional religions to imperial needs. The Hellenistic kingdoms and then Rome developed state cults, the Sassanids adopted Zoroastrianism, the Indian empires Hinduism, and the Chinese dynasties Confucianism. Minority religions such as Judaism either accommodated themselves or resisted, often violently. Christianity had an ambiguous attitude toward Rome, until the conversion of Constantine I began its transformation into the Roman state religion. Monks played an important role in Christianization and were influenced by the Roman military. Subsequently, the military itself was Christianized, with important results.

Outline

- I. During both the age of war and the empires that followed, state religions developed in order to provide legitimacy to the ruling dynasty.
 - A. Under the rule of the Hellenistic kingdoms and then Rome, Greco-Roman religion had been adapted to imperial purposes.
 1. Both the Ptolemies and the Seleucids used a mixture of Greek and local traditions to create state religions.
 2. Similarly, the Roman city religion was adapted to state purposes.
 3. Under the republic, one of the senators was elected chief priest (*Pontifex Maximus*), and military commanders received the right to seek omens from the gods.
 4. In the late republic, soldiers saw the military strongmen who led them as being divinely inspired. The senate even declared Julius Caesar an official god.
 5. Augustus took over both political and religious control of Rome. The emperor always held the office of *Pontifex Maximus*.
 6. In A.D. 228, the religion of Sol Invictus was established to unite the empire. It ultimately failed, and within a century the emperors were Christian.
 - B. Also in the 3rd century A.D., the new Sassanid Persian regime was taking power in what is now Iran.
 1. The Sassanids revitalized the Zoroastrian religion of the Achaemenids to serve as the state religion.
 2. Although minority religions were generally tolerated, a religious bureaucracy was established that both fostered religion and controlled it.
 3. Heretics, however, were severely punished, as we shall see later in both Christianity and Islam.
 - C. In India, under the traditional Vedic religion, the hereditary Brahmin priests performed important rituals for the other castes, including the warrior Kshatriyas.
 1. The *purohita* was a religious advisor who both counseled the king and performed rituals.
 2. Chandragupta's grandson Ashoka converted to Buddhism. The strong nonviolent and pacifist strain in Buddhism made it difficult to make into a state imperial religion, but Buddhism spread both through conquest and conversion.
 3. For example, the Kushan king Kanishka conquered the western part of Central Asia as far east as Turfan, which is part of modern China. This conquest was instrumental in introducing Buddhism into Central Asia.
 4. While the worship of Hindu deities goes back to the Aryan invasion, it was in the period of the Indian imperial states that Hinduism developed from a series of local cults and rituals into a religion.
 - D. In China under the Shang and the Chou dynasties, the king performed important rituals, especially those connected with military campaigns.
 1. The first emperor, Shih Huang-ti, adopted the legalist school as a sort of state religion, suppressing other philosophies such as Confucianism, Taoism, and Mohism.
 2. The emperor Han Wu-ti adopted Confucianism, and this became the state religion of China.
 3. Buddhism only became widespread in China after the fall of the Han dynasty around A.D. 220.
 4. Chinese rulers had difficulty bringing the communities of Buddhist monks under control, as they were often centers of antigovernment activities.
 5. Taoism served at times as a state religion and also became a means of organizing rebellions.
 6. Over time, the Chinese emperor alternated between accepting and suppressing Buddhism, Taoism, and other religions.

- II. We have already discussed the axial age and how periods of warfare and conquest can lead to advances in religion. A similar process occurred during the age of war and of the imperial states that followed it.
- A. A good example was the development of religion after Alexander's conquests joined the Greek and Near Eastern worlds into a single Hellenistic culture.
 - 1. Historians generally recognize two reactions of conquered peoples: assimilation and resistance. But in fact, one often sees both of these reactions within the same group.
 - 2. Jews, for instance, had various reactions to Hellenistic and Roman state religion.
 - B. As in Judaism and other religions, there is a fundamental ambiguity about war in Christianity.
 - 1. Although most of the early church fathers taught that fighting in war was incompatible with being a Christian, there were Christian soldiers even while Christianity was an illegal religion.
 - 2. Saint Martin was a Roman soldier before he became the Bishop of Tours.
 - 3. In some cases, the mythology of pagan war gods was incorporated into Christian ideology through sainthood.
 - 4. Saint George was a Roman soldier, but the story of him fighting a dragon was adopted from the mythology of the Canaanite war god Rapha.
 - C. The emperor Constantine converted to Christianity in the early 4th century A.D. Around A.D. 395, Christianity became the Roman Empire's official religion.
 - 1. Monks and monasticism played an important role in the rise of Christianity. While monks led an ascetic life devoted to religion, they were not a peaceful group. Starting in the 4th century A.D., monks formed a kind of paramilitary force within Christianity.
 - 2. The monastic movement was brought under control by establishing a military-style discipline within it.
- III. Although Christianity had spent its first centuries as an illegal and marginalized cult, it adapted rapidly to imperial rule.
- A. Christians (at least officially) viewed the emperor as the representative of God on earth, and the empire as God's vehicle for spreading his word.
 - 1. Starting around A.D. 400, the Christian Roman emperors began expelling non-Christians, both pagans and Jews, from the army.
 - 2. Priests were assigned as military chaplains.
 - 3. Victory in battle was seen as a sign of God's approval and defeat, of course, as the opposite.
 - B. The Roman army enforced the orthodox belief established by the official church.
 - C. These changes had enormous consequences.

Suggested Reading:

Helgeland, "Christians and the Roman Army."

Schwartz, *Imperialism and Jewish Society*.

Sidebottom, "Philosopher's Attitudes to Warfare."

Zürcher, *The Buddhist Conquest of China*.

Questions to Consider:

- 1. How did the new imperial states adapt religion as an organizing principle?
- 2. Why did the new faiths become both centers of resistance to and means of accommodation with the new empires?

Lecture Fifteen

Barbarians and the Fall of Three Empires

Scope: Both Rome and China faced increasingly powerful barbarian states, especially on their northern frontiers. Both shared similar attitudes and strategies toward the barbarians, despising them but also using them as conscripts, federates (tribal forces), and commanders. The cores faced the problem of supporting large armies with taxation, a great strain on an ancient economy. Under the pressure, the western Roman Empire collapsed, as did the Mauryan and Han dynasties. Around this time, Turkish-speaking tribes took over the steppes of Central Asia from Iranian speakers. Religion played a key role in the success of the barbarians, in the form of Christianity in Rome and Buddhism in China. The experience of the Arabs as Roman federates helped set the stage for the rise of Islam.

Outline

- I. In terms of the western core, historians refer to the entire period between the Christianization of the Roman Empire and the rise of Islam as late antiquity.
 - A. This recognizes the fact that the idea of the fall of Rome is problematic.
 1. In both Rome and China during this period, parts of what had been classical empires divided into mutually hostile states.
 2. Just as the term “fall” is problematic, so is the word “barbarian.” Nevertheless, the word certainly represents the point of view of the core empires of the time.
 3. Both the Romans and the Chinese saw a sharp distinction between themselves and those outside their borders. This external status is what is meant by “barbarian.”
 4. The truth was actually quite different. Those whom the Romans and Chinese called barbarians were in many respects much like the imperial populations.
 5. Despite its ambiguity, I will use the term “barbarian” throughout this lecture to refer to those cultures and political states outside the core empires.
 - B. The rise of the core empires led to a rise of increasingly powerful barbarian states outside their borders.
 1. This was due to the spread of military technology. Trade led to the adoption by the barbarians of the same steel weapons as used by the core.
 2. Service in imperial armies also spread military methods and a familiarity with more sophisticated warfare.
 3. Even as they gained technological parity, the barbarians maintained elements of their martial cultures that gave them advantages over the core empires.
 - C. Barbarian tribal chiefs maintained control over the distribution of wealth. This gave them both political power and the means to keep the loyalty of junior leaders.
 1. One of the common features of barbarian states in this period was that the nobles had armed followings, or retainers.
 2. In Germany, these retainers were called *schar*. They included both free warriors and armed slaves.
 3. The steppe peoples had a similar custom, and among the Arabs, whom we shall discuss later in this lecture, such retainers were called *mawali*.
- II. As the power of the barbarians grew, the core empires responded in various ways.
 - A. Both the Romans and the Han launched punitive expeditions, both to disrupt the barbarian states and to teach them a lesson.
 1. Border fortifications proved to be a relatively inexpensive force multiplier, but only as long as they were sufficiently staffed.
 2. Smuggling and corruption steadily reduced the revenue collected at the borders.
 3. As defenses became more costly, the core empires increasingly used their sophisticated culture as a psychological weapon, bestowing elaborate honors and sometimes marriage alliances on the barbarians as a bid for loyalty.
 4. Ultimately, however, barbarians could maintain their military forces much more cheaply and efficiently than the core empires.
 - B. The Romans, Han, and Mauryans all faced similar problems in maintaining such large empires and centrally controlled militaries.
 1. All the empires tried to use currency taxes to support standing armies.
 2. In the end, standing armies proved too expensive for the economies of the times, and cost-cutting measures reduced quality.
 3. In order to save money, the late Roman Empire developed the institution of federates, allowing barbarian kings autonomous regions within the empire in exchange for providing troops.

- C. The relationship between the civilized and barbarian worlds was not one of simple hostility.
 1. In a military context, individuals and groups moved back and forth, sometimes as enemies, sometimes as allies.
 2. Often, individuals from both sides lived a sort of double life within both cultures.
- D. While it is useful to see the cultural blending of this period, there is no question that many of the core empires, or at least parts of them, were replaced by barbarian states.
 1. In the 5th century, the western Roman Empire collapsed, replaced by German kingdoms. Only the eastern part remained to become the Byzantine Empire.
 2. A similar process occurred in China, where the steppe peoples established a series of states in the north, called the Three Kingdoms.

III. At the same time, an important but enigmatic change occurred in the steppes.

- A. Various peoples, mainly Turkish, began taking over control of areas in Central Asia that had been dominated by Iranian-speaking peoples.
 1. Around A.D. 500, the western Turk Empire dominated what is today Kazakhstan. The Turkish-speaking Uighur Khaganate dominated most of northern Central Asia. Turkish Bulgars seized parts of the Balkans and Turkish Khazars the Ukraine.
 2. White Huns invaded India, and the Hsiung-nu kept pressure on China, although scholars debate whether they were Turkish speakers.
 3. The Tibetans, who spoke a language related to Chinese, entered history for the first time and expanded rapidly to control the central region of the steppes.
 4. The new rulers of Central Asia recognized the value of trade, and the Silk Road remained an important corridor.
- B. Religion played a key role in the organization and success of the barbarians.
 1. It is striking that around the 8th century three steppe confederations adopted state religions.
 2. The Khazar nobility converted to Judaism, the Tibetans became Buddhists, and the Turkish Uighurs adopted Manichaeism as their state religion.
 3. Christianity played an especially important role in the rise of the German kingdoms in western Europe. The Germans adopted Arian Christianity, seen as heretical by the Roman Church.
- C. What was happening in both Rome and China can be seen not as a fall or as a transformation, but as a kind of political and military shift.
 1. For Rome, the empire shifted east to Constantinople. The eastern provinces remained more or less as they had been, and both civil and military administration continued to function as before.
 2. China experienced a similar shift, but from north to south. The northern portion of China disintegrated into a series of kingdoms, but southern China maintained the empire under the Jin dynasty.
 3. The major difference between China and Rome in this respect is that the Chinese empire was able to reunite in the 6th century, while Rome was never able to achieve reunification.
- D. For the Romans, the Germans to the north were not the only barbarians. The Arabs, who inhabited the semidesert and desert regions to the south, were also barbarians.
 1. In the pre-Islamic period, Arabia divided into the urbanized, non-Arabic-speaking south and an Arabic-speaking desert region in the west.
 2. Arabia controlled important trade routes, carrying frankincense, myrrh, and other products across the desert on camels.
 3. Though horses were used as military mounts, most Arab warriors were infantry.
- E. Islam grew in the context of a violent struggle between Zoroastrian Persia and Christian Ethiopia, which was backed by the Byzantine Empire. This climaxed in a battle fought at Mecca around A.D. 570, the same year that Muhammad was born.

Suggested Reading:

Bachrach, *Armies and Politics in the Early Medieval West*.

Barfield, *The Perilous Frontier*.

Crone, "The Early Islamic World."

Mielczarek, *Cataphracts and Clibanarii*.

Questions to Consider:

1. What were the causes of the increasing power of the barbarians along the entire length of the core?
2. How can the rise of Islam be seen in this context?

Lecture Sixteen

Conquest Links the Core

Scope: After the fall of the core empires, there was a brief resurgence of centralization in the 8th and 9th centuries. Under the Tang, China became an economic and military powerhouse. The rise of Islam established the powerful caliphate. The original Muslim state was loosely organized, however, with regional armies maintaining much of the power. The Umayyads established a more centralized state, but this began the Sunni-Shi'a split that continues to modern times. The Abbasids overthrew the Umayyads and expanded the use of slave soldiers. The Byzantines and Frankish Carolingian state stopped the Muslim advance, but both benefited from slave trading, which was revived under Islam. Trans-Saharan trade expanded, both in slaves and in gold. Muslim armies defeated the Chinese in Central Asia.

Outline

- I. In the 8th century, one could travel from the Atlantic coast of Africa to the Pacific coast of Asia and pass through only two states: the Muslim caliphate and Tang China.
 - A. There were other centralized states throughout the 8th - and 9th-century core.
 1. The kingdom of Ghana controlled a large area of West Africa, and the Frankish Kingdom ruled over much of western Europe. A resurgent Byzantine Empire controlled the Balkans and Anatolia.
 2. In India, the Buddhist Pala dynasty dominated northern India while the Hindu Chola dynasty ruled much of the south and had colonies in Southeast Asia.
 3. There were several powerful steppe confederations, the Khazars in the west and the Uighurs in east. In the center, Tibet threatened both the Chinese and the Muslims.
 4. In the Far East, a strong Heian dynasty ruled Japan and a strong Silla dynasty ruled Korea.
 - B. After a period of division following the fall of the Han, China was reunited by a military officer who established the Sui dynasty and took the throne name Wen.
 1. Wen reversed the anti-Han policies of the northern dynasties and, although a Buddhist himself, reinstated Confucianism as the state ideology.
 2. Wen reunited China through military skill.
 3. After Wen was murdered by his son, a general named T'ai Tsung took over and founded the Tang dynasty, which ruled China for almost 300 years.
 - C. The Tang dynasty was a period of great economic growth for China.
 1. This was driven in part by the completion of the Grand Canal that linked the Yellow and Yang-tse rivers.
 2. The Tang had a highly efficient bureaucracy and civil service.
 3. Land was assigned to the peasants, who in effect owned it as long as they worked it. This created a level of prosperity never seen before.
 - D. The Tang dynasty provided the economic basis not only for a powerful government but also for a strong military.
 1. The core of the Tang military was raised using military colonies of settler soldiers.
 2. In addition, the Tang maintained a large professional cavalry force at the capital, Chang-an.
 3. Tang established protectorates over parts of northern India, Afghanistan, and Uzbekistan on the borders of the Muslim caliphate.
- II. The Muslim caliphate rose to become an empire that extended from the Atlantic Ocean to Central Asia.
 - A. I owe much of my view of early Islam to the groundbreaking work done by Patricia Crone.
 1. Muhammad organized his early followers, the *mumin* (believers), into an army.
 2. An excellent general and politician, Muhammad also had brilliant commanders such as Khālīd ibn al-Walīd and 'Amr ibn al-'As.
 3. By the time of Muhammad's death in 632, the Muslim state controlled most of Arabia.
 - B. Under the caliphs, or successors to Muhammad, the state expanded rapidly—especially under the second caliph, Omar.
 1. It conquered Persia and much of the Byzantine Empire.
 2. Islam enjoyed monotheism's military advantages, such as the use of martyrdom as an incentive, but avoided many of its problems, such as ambivalence about holy war.
 3. The invasions came after a long war between the Byzantine Empire and Sassanid Persia. The defection of the Ghassanid federates was a key factor in Muslim success.
 4. Religion also played a role: Persecuted religious minorities tended to welcome the Muslims.

- C. Rather than taking over the cities of the Near East, as earlier conquerors had done, Omar kept his forces together in garrison cities and military districts.
 - 1. The Arab warriors were organized into regional armies. Heavy cavalry became the norm.
 - 2. Non-Muslims originally did not serve in the military, except for Coptic Christian sailors.
 - 3. Increasingly, captives were used for specialist tasks, especially Iranian and Indian archers. Such non-Arab soldiers often converted to Islam.
 - 4. Central control was weak and the quasi-autonomous armies did the conquering and the administration.
 - 5. While Muslims were supposed to be loyal to religion, not to tribe, this was not the case in practice.
 - D. Succession was a serious problem. The leading generals met in council, but the army also functioned as a kind of assembly. Not surprisingly, power struggles developed.
 - 1. The issue was not one of theology, but of authority.
 - 2. One party supported the family of Muhammad. Out of this group would arise the Shi'a.
 - 3. A second group, the Sunni, arose under the leadership of the leader of the Umayya clan, Mu'awiyah, commander of the Syrian army that elected him caliph.
 - 4. A third group was the Kharijites, who rejected the idea of an inherent caliph.
 - 5. Victory was decided in a series of battles. Mu'awiyah was victorious and established the Umayyad caliphate.
 - E. The Umayyad established a monarchy at Damascus, borrowing Persian and Byzantine administration and law.
 - 1. Non-Arabs, mainly Christian and Jewish Syrians and Persians, served as the bureaucrats.
 - 2. The Umayyad were violently opposed by the Shi'a and Kharijites.
 - 3. By the end of the 7th century, the Muslim military system had begun to break down.
 - 4. In 750, the Arab army of eastern Iran led the Abbasid revolt that overthrew the Umayyad.
- III. The Byzantine Empire succeeded in blocking Muslim expansion into eastern Europe in the 8th century.
- A. They were able to do this by replacing most of their professional army with themes made up of settler soldiers.
 - 1. Themes were both military units and districts. These were larger than the Chinese version, but the system was much the same.
 - 2. Since the Byzantines were generally on the defensive, the thematic system was quite effective.
 - 3. Like the Tang, the Byzantines also had professional units stationed in the capital and allied themselves with neighboring steppe peoples.
 - B. The Carolingian Frankish dynasty rose to power after Charles Martel led the Franks to victory over the Spanish Muslims in the 8th century.
 - 1. Martel's grandson, Charlemagne, is often said to have developed the feudal system, but his state was actually centralized.
 - 2. Charlemagne made effective use of logistics and siege warfare. The money for this probably came from his active slave trading.
 - 3. The Muslims bought many slaves from Europe. Trading in Christian slaves was illegal, though widely practiced.
 - 4. It is quite possible that the Muslim demand for slaves helps explain the Viking raids, which begin in the 8th century.
 - C. The demand for slaves and for gold also had an effect on Africa.
 - 1. The first attested trans-Saharan caravan from West Africa carried slaves in the mid-8th century.
 - 2. The Muslims mainly used slaves for military or domestic purposes but experimented with plantation slavery in southern Iraq, using East African slaves called the Zanj.
 - 3. In the 9th century, there was a massive Zanj slave revolt, but after several years it was defeated by Abbasid forces.
 - D. On the border between the Tang dynasty and the Abbasid caliphate, a fierce struggle developed over control of the Silk Road.
 - 1. The Muslims defeated the Tang in the Battle of the Talas River in 751, but an internal revolt led by General An Lushan was more instrumental in weakening the Tang.
 - 2. An Lushan was a half-Turkish, half-Iranian steppe noble. His name was actually Rokshan, an Iranian name we still use in its female form, Roxanne.
 - 3. Although the revolt was ultimately put down, the Tang were never as powerful again, and the dynasty gradually declined.

Suggested Reading:

Crone, *From Arabian Tribes to Islamic Empire*.

Graff, *Medieval Chinese Warfare*.

Kennedy, *The Armies of the Caliphs*.

Questions to Consider:

1. What were some of the factors that led to the success of the Tang and Muslim empires?
2. How did trade with China affect the core?

Lecture Seventeen

The Middle Ages and a Common Way of War

Scope: After A.D. 500, the direction of military innovations in the core shifted. Whereas innovations had previously moved mainly from west to east, the rise of the Tang dynasty began the trend of Chinese inventions moving from east to west. The main military feature of this period was the armored horseman, which was adopted all through the core, from western Europe and Africa to China and Japan. Despite the dominance of the armored horseman, infantry, siege warfare, and navies continued to play a role.

Outline

- I. Despite the diversity of culture, religion, language, and politics in the Middle Ages, there was a remarkably similar military culture present throughout the core.
 - A. After A.D. 500, the eastern empires, notably China, became the incubators for innovations that spread to the West.
 - 1. Examples of Chinese military inventions include the crossbow, the stirrup, the trebuchet, and gunpowder.
 - 2. Other Chinese inventions, while not strictly military, had a dramatic impact on the conduct of Western warfare. These include cast iron, papermaking, and the compass.
 - 3. Important intellectual advances occurred in the Muslim world, in large part due to the fact that the Persian, Indian, and Greek traditions shared a language: Arabic.
 - 4. One important exception to the east-to-west rule was Greek fire, which was invented in the Byzantine Empire and spread both west and east.
 - B. The most characteristic feature of the Middle Ages was the armored horseman, which became the centerpiece of warfare throughout the core.
 - C. By the 9th century, the stirrup was in use everywhere in the core. The stirrup has engendered a great deal of controversy among military historians, and its impact is still debated.
 - 1. Lynn White, a historian of medieval technology, wrote an influential book arguing that the adoption of the stirrup in western Europe was responsible for the entire institution of feudalism.
 - 2. Military historian Bernard Bachrach wrote a scathing critique of this theory, downplaying the role of the stirrup, and his view is now widely accepted.
 - 3. Nonetheless, the stirrup did improve the efficiency of armored cavalry, and heavy armored cavalry took on a greater and greater role in warfare.
- II. Although in most ways the weapons and armor of the armored horsemen were more similar than different along the core, there is one exception: the bow.
 - A. In large part, the “bow line” that separated the armored horsemen of the east and west was determined by proximity to the Central Asia steppes.
 - 1. The heavily armored horsemen of the Muslim world, Central Asia, India, China, and the rest of Asia carried the composite bow. Shooting accuracy was incorporated into the training of horsemen in all regions east of the bow line.
 - 2. The bow line existed in Africa as well. Noble horsemen in Egypt used the bow, while those in the western parts of Africa and Muslim Spain did not.
 - B. Throughout the core, armored warriors used the lance as a primary weapon.
 - C. Armored horsemen also used swords, axes, and maces. At times, these functioned as secondary weapons, used only when the bow or lance were no longer usable, though some cavalry used them as primary weapons.
 - 1. One of the great advantages of the axe in mounted warfare was its ability to strike downward with tremendous force.
 - 2. The sword was a weapon that not only had a great deal of practical use to the mounted horseman but became an important element of his ideology.
 - 3. Medieval swords were commonly made of steel, greatly increasing their tensility and the sharpness of the edge.
 - 4. Both warrior and horse now wore armor, usually chain mail in the West and lamellar armor in the East.
 - 5. In the 13th century, as manufacturing techniques became more sophisticated, plate armor was introduced.
 - 6. Helmets also grew more sophisticated. As time went on, visors became common in the West.

III. In a military system based on noble armored horsemen, access to large, carefully trained and maintained horses was vital.

- A.** West Central Asia remained an important source of horses, and an international trade in horses existed, alongside that in slaves.
 - 1. The war-horse is distinct from the working horse and needed special training and maintenance. Nobles required specialist horse trainers and large nonnoble staffs for their horses.
 - 2. The official in charge of a king's stable was a particularly important position.
 - 3. Any sort of fighting on horseback is difficult, but that done in the medieval core was especially challenging and required a high level of skill and training.
- B.** As we saw in the case of the chariot nobility, the need for the armored horseman led to the rise of a specialized aristocracy.
 - 1. While there were horse-riding aristocrats in most medieval cultures, certain ethnic groups were especially known for their skill, including the Franks, the Seljuks, and the Kambojas.
 - 2. Armored cavalry was very expensive, and most states developed relatively efficient administrations and tax-collecting systems. In most cases, this involved tying peasants to the land.
 - 3. This had the long-term effect, however, of discouraging innovation and productivity, as the workers on the land had no incentive to improve it.
- C.** Despite the dominance of the armored horseman, other elements played a role in medieval warfare.
 - 1. Infantry was quite important, both in defending castles and in open battle. Infantry bowmen were an especially critical auxiliary force.
 - 2. The crossbow spread from China, arriving in Europe around the 10th century. In China, crossbows were a feature of the professional military. In the West, they were specialty weapons.
- D.** Navies of the period receive very little attention but were very important.
 - 1. The cultures in the East had powerful fleets, but Western naval warfare lagged behind.
 - 2. In the medieval Mediterranean, the light galley, in use by both Christian and Muslim states, had not really developed much from Roman times.

Suggested Reading:

Contamine, *War in the Middle Ages*.

DeVries, *Medieval Military Technology*.

Hildinger, *Warriors of the Steppe*.

Smail, *Crusading Warfare*.

Vergruggen, *The Art of Warfare in Western Europe*.

Questions to Consider:

- 1. How did the use of a common military method affect various regions of the core?
- 2. Why did the trend of technological innovation switch from moving west to east to moving east to west?

Lecture Eighteen

Armored Horsemen and Global Feudalization

Scope: The use of the noble armored cavalryman, or knight, in Europe, Africa, and Asia led to feudal system in all these regions. The ability of the armored horseman to extract wealth from the land in exchange for military service led to a process of decentralization throughout the core. Among the nobles, specialized codes of behavior developed, such as chivalry in the West and bushido in Japan. A characteristic literature accompanied each, extolling and advertising its virtues. All of the feudal codes involved military expertise, behavior in and out of battle, a religious element, and a strong distinction between noble warriors and commoners.

Outline

- I. At first glance, the feudal system may seem like the chain of command in a military organization, but there are a number of important differences between feudal and military ranks.
 - A. A knight might be the vassal of the king directly, and one might owe fealty to any number of higher lords.
 - 1. Military obedience was not absolute; there were limits to what the lord could command of the vassal.
 - 2. In addition, there was the notion that the lord had to respect certain feudal terms; if he did not, the fealty was broken.
 - 3. The vassal generally received a fief from the lord in return for fealty. This in turn made the vassal lord over the common people on the land.
 - 4. A feature of European feudalism is that church officials, such as bishops and even the pope, functioned as lords and had military forces at their disposal.
 - B. Some historians insist that the term “feudalism” be confined to the European political and military system of this period.
 - 1. World historians like me would rather focus on the general functional elements of feudalism.
 - 2. Azar Gat makes a powerful case for a broad use of the term. He argues it is the armored horseman and his ability to derive enough wealth from land to support himself that makes for feudalism, not the details of regional custom and law.
 - 3. A key element of feudalism was supporting the lord in a lifestyle that allowed him to improve his riding and fighting skills.
 - C. Since feudalism did not require an extensive tax system, a knight could support himself without being part of a larger political and economic unit. This had a strong decentralizing effect.
- II. The widespread use of the armored horse warrior throughout the core led to a similar dynamic in other cultures.
 - A. Throughout the core, armored horse nobles took every advantage of weakness in central governments to gain autonomy and independence.
 - 1. Polities broke up into small units, often named after the title of the ruler: counties, duchies, and baronies in Europe; sultanates and emirates in the Muslim world; dynasties and kingdoms in China.
 - 2. Authority did not run along bureaucratic lines but was established by kinship and alliance. Boundaries were often hazy and ambiguous. Military force was raised on the retainer system and complemented by urban levies or mercenaries.
 - B. During this period, a class of unattached, professional military nobles developed who would sell their services to lords during a conflict.
 - C. The armored knight generally did not have the wherewithal to control urban regions or draw substantial income from trade routes.
 - 1. Thus we find the rise of independent or autonomous cities throughout the core.
 - 2. Examples include the city-states of northern Italy, such as Venice and Genoa; the medieval Russian republics of Pskov and Novgorod; and some of the cities of the steppes, such as Kuchan.
- III. Feudalism was not just a political and military system. It also involved an ideology. Specialized codes of behavior developed among nobles throughout the core.
 - A. These codes governed proper behavior, in court (thus our word “courtesy”), at table (called etiquette), and in war (chivalry).
 - 1. As with military technology and method, these codes influenced each other and spread from one region to another.

2. Some aspects of the Western idea of chivalry were probably borrowed from the Muslim code called the *futuwa*. The Muslim code was supplemented by Christian notions about women, quest, and purity to form the code of chivalry.
 3. The newly Christianized and feudalized states of eastern Europe and the Byzantine Empire borrowed elements from both the Muslim *futuwa* and Western chivalry.
 4. The Rajput code was the Indian version of the noble code. As in the case of chivalry, there may well have been borrowing from the *futuwa*.
 5. Many aristocratic codes did not result from borrowing from the *futuwa*, such the noble codes of *hsia* in China and bushido in Japan, but the commonality of the underlying military system led to many similarities.
- B.** Horse riding was in many respects the sine qua non of such systems.
1. Personal courage and skill at arms were also essential elements.
 2. The noble codes emphasized a preference for straightforward combat instead of stratagems and tactics. But intelligence was still valued in the form of wisdom, as evidenced by the popularity of chess in this period.
 3. Arms and armor were very important to horse-riding nobles, and they strove to obtain the most expensive varieties, both for practical purposes and as a matter of prestige.
 4. One element that existed in almost all of the codes was a strong distinction between noble warriors and commoners.
 5. A characteristic literature accompanied each of the noble codes, educating and inspiring young nobles and advertising its virtues.
 6. Medieval historical writing focused almost exclusively on nobles and became part and parcel of the feudal codes.
- C.** Attitudes toward women varied in these different warrior codes. In some noble cultures, protecting women became a virtue, but many continued the traditional ideas of misogyny.
1. Ideas about sexuality are key elements of all ideologies, and this was especially true of medieval noble codes.
 2. While many of the stories featured romance, celibacy was considered praiseworthy in these codes.
 3. The brutal realities of warfare were, of course, quite different from the ideals of these codes. Rape, robbery, torture, wanton destruction, and the killing of civilians were all quite normal in medieval war, as they are today.
 4. Religious behavior was an important part of all of these codes. Christianity, Sufism, and Zen Buddhism were essential in the formation of noble codes.

Suggested Reading:

Farris, *Heavenly Warriors*.

French, *The Code of the Warrior*.

Keen, *Chivalry*.

Questions to Consider:

1. What can explain the development of feudalism along the entire length of the core?
2. Which similarities in the noble codes can be explained by diffusion, and which cannot?

Lecture Nineteen

Crusade, Jihad, and Dharma Yuddha

Scope: Driven by both religious fervor and political goals, religious wars became more common. The idea of just war took on a religious element in the ideology of the Christian Crusade, the Muslim jihad, and the Buddhist/Hindu *dharma yuddha*. There was a centuries-long conflict between Islam and Christianity, fought from the Near East to Spain. On the eastern frontier of Islam, there were wars with Hindu and Buddhist states. Religious wars were also fought against pagan peoples, as evidenced by that of the Catholic Germans against the pagan Lithuanians. A religious component was especially evident in the subculture of frontier knights. Another military subculture was that of priestly warriors, such as the Christian Knights Templar.

Outline

- I. After the year 1000, a period of intense and violent religious conflict developed in the core that would last for several centuries.
 - A. The struggle between Islam and Christianity, quiescent for about a century, broke out again into open warfare.
 1. By the 11th century, Muslim Spain had split into a dozen small hostile states as a result of feudalization.
 2. The northern Spanish kingdoms began attacking Muslim states, conceiving it not as conquest but as a reconquest.
 3. The Christian capture of Toledo in 1085 prompted the Spanish Muslims to call in the fanatic North African Almoravids.
 4. Arab historians see this fighting in Spain as the beginning of the Crusades.
 - B. In the Near East, the Seljuk Turks converted to a militant form of Sunni Islam and seized control of the Abbasid caliphate. They began an aggressive campaign against the Byzantines.
 1. In 1071, they defeated the Byzantines and drove them from eastern and central Anatolia, spreading Islam and Turkish culture into the region.
 2. The Byzantine emperor appealed for help from the West, expecting Christian knights who would serve under his command. What he got was a crusade.
 3. In response to the Byzantine appeal, Pope Urban II preached a public sermon calling for Christian knights to conquer the Holy Land.
 4. The First Crusade caught a divided Islam by surprise and succeeded in conquering Syria and Palestine. The Muslims, however, soon pushed the Christians out of the Holy Land.
 5. The idea of the Crusade survived its failure in the Near East and was applied to the expansion of Christianity into eastern Europe.
 6. Various groups of military orders of priests defeated and converted the pagan Prussians and other Baltic tribes in the 13th century. The pagans submitted in 1413.
 - C. To understand the motivations of the Crusaders, we need to look back at the development of the Crusade idea.
 1. The theological definition of “just war” was worked out by the church fathers, most notably Saint Augustine.
 2. In the 11th century, the Catholic Church started to develop the notion of the Crusade, or holy war.
 3. Pope Gregory VII claimed the right to demand military support from secular rulers. Pope Urban II took the final step, calling for troops to go on the offensive in the Holy Land.
 4. In order to inspire the Crusaders, Pope Urban II instituted the idea of plenary indulgence, a way of giving sanctification to the soldiers killed in wars against Muslims.
 - D. In practice, Crusades were extraordinarily brutal, especially toward civilians.
 1. In the war to the east, crusading armies routinely massacred Jews.
 2. This was especially true of Crusades launched against heretics, such as the Albigensian Crusade against the Cathars.
 3. Despite the violence of medieval Catholicism, there was still a strong pacifistic tendency in the church.
 4. The Franciscans, founded by the nobleman Francis of Assisi, were well-known for their opposition to violence.
 5. The Poor Men of Lyons, also called the Waldensians, were a popular movement that rejected all violence, especially in the name of religion.

II. Let us now turn to the Muslim response to the Crusades.

- A. Global feudalization had affected the 11th-century Muslim Near East, and this helps to explain the success of the First Crusade.
 - 1. Fighting among the various Muslim states in the region hindered Muslim defense.
 - 2. Yusuf ibn Ayyub, known as Saladin, united Syria and Egypt into a single state and called the struggle against the Christians a jihad.
 - 3. While Islam was being pushed back in Spain and barely holding its own in the Near East, it was expanding to the east into India and along the Silk Road.
 - 4. Islam also pushed south into Africa. The Almoravids, the puritanical Islamic movement that was defending Islam in Spain, crossed the Sahara and conquered Ghana.
- B. Islam had a less problematic relationship with holy war than Christianity did.
 - 1. The world was divided into two categories: regions that had submitted to God's rule (the *Dar al-Islam*) and those that had not (the *Dar al-Harb*, or Region of War).
 - 2. Wars in the name of Islam were praiseworthy, and those who died in such wars were martyrs.
 - 3. Wars against fellow Muslims were forbidden, but this was made problematic by the idea of apostasy.
 - 4. Muslim theologians distinguished the greater jihad (the internal human struggle to remain true to God) from the lesser jihad (holy war against the infidel).
 - 5. The notion of jihad changed somewhat after the Christian occupation of Palestine in the 12th century, from the virtue of spreading Islam to the obligation of expelling infidels.
 - 6. In the 13th and 14th centuries, the jurist Taqi ibn Taymiyya developed a more wide-ranging view: that jihad was the best way of serving God and was not just virtuous but obligatory.
- C. Just as an extremely militant view of jihad was forming, the opposite tendency was also apparent in Islam. In the 12th century, Sufism, a mystical movement that emphasized love of God over religious rules, became an important element of Islam.

III. Holy War also occurred east of the "soul line," in regions dominated by Hinduism and Buddhism.

- A. While generally devoted to the idea of nonviolence, Buddhism expanded, ironically, primarily through conquest.
- B. Religious war occurred not only between religions but also within them.
 - 1. There was fighting between Catholic and Orthodox Christians. Until the 8th century, both churches recognized the lines of authority drawn in the late Roman Empire, but they now started fighting over religious control of various regions.
 - 2. This fighting escalated and culminated in the sack of Constantinople by the Fourth Crusade in 1204.
 - 3. In the Muslim world, Sunnis and Shi'a fought each other, even allying themselves with the Crusaders to gain advantage over the other side.
- C. Religion also played a role in the military subcultures, both within the mainstream traditions and as a unifying force among sectarian states.
 - 1. A feature in several societies was the strong religious component evident in the subculture of frontier knights. An example is the Christian noble in Spain, El Cid.
 - 2. The Muslim Ghazis were frontier warriors who included Turks in Anatolia, Persians in India, and Berbers in Spain.
 - 3. The Hindu Rajputs also incorporated religion into their wars with the Muslims.
 - 4. Another military subculture was that of priestly warriors like the Christian Knights Templar.

Suggested Reading:

Bachrach, *Religion and the Conduct of War*.

Karsh, *Islamic Imperialism*.

Lyons and Jackson, *Saladin*.

Madden, *The New Concise History of the Crusades*.

Victoria, *Zen at War*.

Questions to Consider:

- 1. What effects did the wars of this period have on the religious map of today?
- 2. How did the various religions of this period deal with the issue of war?

Lecture Twenty

The Mongols Conquer a World

Scope: Genghis Khan organized his empire and military along the traditional lines of steppe culture but was more successful than any such previous state. Our image of the Mongols is of wild and brutal barbarians, but the “horde” (a word derived from Mongol), was in fact a highly disciplined force. The Mongols relied on quasi-autonomous armies, however, and the empire broke up into independent khanates. These worked together, though, and allowed the transcontinental movement of goods and individuals.

Outline

- I. In the 13th century, Muslim control over the central core was challenged by the rise of a powerful new state on the steppes of Central Asia: the Mongol Empire.
 - A. The Mongols were an ethnic group different from, but in the same language family as, the Turks.
 - 1. The linguistic and ethnic makeup of the Mongol Empire was varied.
 - 2. The Mongols had a traditional religion, but many followed Buddhism, Nestorian Christianity, and Islam.
 - 3. Despite their ethnic and religious variety, the lifestyle of the Mongols was very similar and had not changed much in the past thousand years.
 - 4. The Mongols were pastoral people who lived off their herds but supplemented their incomes by trade, raiding, and serving as mercenaries or allies for the Turks and the Chinese.
 - 5. Mongol political organization was similar to that of the Turks: Clans organized into tribal confederations, which changed rapidly due to infighting.
 - B. The armored horseman was as much a part of Mongol warfare as it was elsewhere in the core.
 - C. Temujin, who took the title Genghis Khan, first took power over his own clan and then his tribe, and then he united all the Mongols in a confederation under his rule.
 - 1. Each of his conquests seems to have been well thought-out and designed to create a powerful state in the steppes that could conquer the wealthiest region in the world: China.
 - 2. It is striking, then, that his first major conquest was to the west, where he found himself on the borders of both Christian and Muslim worlds.
 - 3. When he died, Genghis Khan’s empire ran from the Caspian Sea to the Pacific along the steppes.
- II. In the historiographies of the West, Islam, India, and China, the Mongols were viewed as the ultimate barbarians, but the Mongol army was in fact highly disciplined.
 - A. Like Julius Caesar, Genghis Khan promoted highly skilled and loyal men of low birth to positions of very high command.
 - 1. He allowed these so-called dogs of war a great deal of tactical and strategic independence, and much of the Mongols’ success had to do with their abilities.
 - 2. The armies commanded by these generals usually consisted of two or three units of 10,000 men each.
 - 3. In order to coordinate the movements of widely dispersed armies, the Mongols used carrier pigeons.
 - 4. The Mongols incorporated siege engineers from the former Ch’in army and sophisticated siege equipment developed by the Chinese.
 - 5. As in the case of the Assyrians, terror was used systematically and for a political end. Cities that surrendered were generally treated leniently.
 - 6. Mongol historical sources say that Genghis Khan considered his mission of ruling the world to have come from Tengri, the god of heaven. While most historians dismiss this, attributing his motivation to a lust for power, the possibility of his faith should be considered seriously.
 - B. Many of the previous steppe empires had been short-lived because tribal feudalism had led to discord over succession. Genghis Khan was well aware of this problem and tried to fix it by establishing a system of succession.
 - 1. He chose one of his sons as the Great Khan, who would have overall authority, but this son and his two brothers each ruled a third of the empire, known as a horde.
 - 2. Subsequently, the Great Khan was selected from among Genghis Khan’s closest descendants in a meeting of nobles held in the Mongol capital.
 - 3. Since all leaders had to be physically present, this meant all campaigning came to a halt when the Great Khan died.
 - 4. This method of succession proved to be unsuccessful and indeed exacerbated struggles within the family.

- C. Despite the fractured state of the empire, Mongol expansion continued after Genghis Khan's death.
 1. The Mongols invaded the Near East, destroying the Abbasid caliphate and sacking Baghdad.
 2. In the west, the Golden Horde defeated Russian, German, and Hungarian armies, extending its control as far west as modern Austria.
 3. In the east, the Mongols conquered Korea, defeated the Sung dynasty, and annexed China.
 4. After the conquest of Iran and Iraq, the Mongols faced a powerful enemy in the Mamluk dynasty of Egypt.
 5. The Mongols may have coordinated with King Louis IX of France, but if they did the effort failed, because the Mongols were defeated.

III. In 1260, Kubilai Khan became the Great Khan and created what was known as the Khanate of the Great Khan to the Mongols and the Yüan dynasty to the Chinese.

- A. After Kubilai Khan's death, the Mongol state became increasingly fragmented into a series of ultimately independent states, called khanates.
 1. In the far west was the Khanate of the Golden Horde; in the Near East, the Khanate of the Il-khans, and in the center, the Chagatai Khanate.
 2. In the east, the Khanate of the Great Khan became assimilated with China, as the descendants of Kubilai Khan lived in Beijing as Chinese monarchs.
 3. Although they sometimes fought, these khanates did cooperate. They recognized each other's passports and offered safe passage.
 4. This allowed the transcontinental movement of goods and individuals, especially along the Silk Road. Starting around 1340, the Black Death spread along the Silk Road, weakening the Mongol khanates.
- B. By 1400, most of the Mongol states had been absorbed into local political states and cultures.
 1. In 1368, a revolt by the Chinese overthrew the Mongol Yüan dynasty.
 2. The Mamluks of Egypt and the Ottoman Turks split control of the Mongol Near East.
 3. The Golden Horde was weakened both by the Black Death and civil war and was driven into the western steppes by the Duchy of Moscow.
- C. Despite their destructive reputation, the Mongols contributed many cultural changes and were an important part of the development of the core.
 1. The use of decorated tiles moved first to the Near East, then Spain, and later to the New World.
 2. The food of the Middle East and the eastern Mediterranean was changed: pita bread, humus, falafels, kebabs, and yogurt are all results of the Mongol invasion.
 3. The tall, pointed hats of the steppes passed into Europe in women's fashion and in the pointed hats of sorcerers.
- D. The southern equivalent of the Silk Road, the Spice Route, ran through the Indian Ocean to the Spice Islands of the East Indies and on to China.
 1. East of India, the Indians monopolized the Spice Route.
 2. By the 5th century A.D., there is strong evidence for Indian, and especially Hindu, influence throughout the East Indies and Southeast Asia.
 3. A series of Hindu empires, both in Southeast Asia and the East Indies, vied for control of the India-China trade.
 4. From the 9th to the 12th centuries, the eastern part of the Spice Route was controlled by the Chola. They were replaced in the 13th century by the Vijayanagara Empire, which controlled the Spice Route until the 16th century.
 5. From the European point of view, this did not matter, for the defeat of the Mongols and the conversion of the Il-khanates to Islam meant that access to both the Silk Road and the Spice Route were monopolized by the Muslims.

Suggested Reading:

Allsen, *Mongol Imperialism*.

Amitai-Preiss, *Mongols and Mamluks*.

Chambers, *The Devil's Horsemen*.

Weatherford, *Genghis Khan*.

Questions to Consider:

1. How can we account for the rapid rise, and fall, of the Mongol Empire?
2. What impact did the Mongol Empire have on world history?

Lecture Twenty-One

The Business of War in Medieval Europe

Scope: The combination of small states, a recovering economy, and nascent nation-states generated an intense arms race in western Europe. New mining, casting, and smithing technologies (mostly borrowed from the Chinese and Muslims) combined with abundant sources of iron to create a profitable and innovative European arms industry. The increasing cost of war and the attempt by kings to expand their realms produced a huge market for credit and the beginnings of modern banking. The eastern Mediterranean was the gateway to both the Silk Road and the Spice Route, and fighting over it by Italian city-states and the Byzantine Empire fostered the development of mercenary companies.

Outline

- I. For most of the Middle Ages, Europe was a second-tier power among the regions of the core, which was dominated by China. But the institutional and technological changes that took place in Europe during this time set the stage for the dramatic turnaround that has occurred over the last 500 years.
 - A. Before we discuss changes in European economy and warfare, we need to look at what was happening to the economies of China and the rest of the core during the medieval period.
 - B. The role of warfare and the military in the medieval Chinese economy is not always appreciated.
 - C. Although the 13th century was a period of dramatic economic expansion for Europe, it continued to lag behind China, India, and the Muslim world.
 - D. While a recentralization eventually occurred in Europe, the trend was delayed by several centuries.
- II. Despite, or even because of, the endemic warfare, the Middle Ages was a period of economic growth throughout Europe.
 - A. There was a general rise in agricultural production, the wool and fur trades, and mining.
 - B. Along with abundant sources of iron, new smelting and smithing techniques led to higher-quality weapons and armor.
 - C. Innovation in military technology did not change warfare as much as it changed the economic base.
- III. The cost of war often exceeded the possible revenue of a medieval European kingdom. This produced a market for credit.
 - A. The medieval economy was ill-equipped to provide loans, since the church prohibited Christians from lending money with interest.
 1. Jews could legally lend money with interest, but there were few who could afford to float war loans.
 2. Another traditional lender was the Christian Knights Templar, who had amassed great wealth in the Holy Land and eastern Europe.
 3. Because monarchs often defaulted on war loans, traditional creditors grew unwilling to lend; kings often responded by seizing their wealth by force.
 - B. The solution to Europe's credit crunch came out of Italy.
 1. In 1403, Florence ruled that charging interest did not qualify as usury, which allowed Christians to practice banking and opened up credit markets across Europe.
 2. During the 15th century, several Italian families (such as the Medicis) became major lenders throughout Europe.
 3. Banking had an important impact on the rise of the Renaissance, as merchants, traders, and bankers began to amass financial—and therefore political—leverage.
 - C. Italian city-states such as Venice and Genoa were rivals and often enemies in war. The Byzantines and the Catalonians joined the fray.
 1. The Italians and the Byzantines were cash rich but population poor, which fostered the development of mercenary companies.
 2. Although made up of noblemen, the mercenaries were much more focused on the practicalities of war than on the chivalric code. Skill at fighting became more highly prized than noble lineage.

Suggested Reading:

Brauer and van Tuyll, "The High Middle Ages," in *Castles, Battles and Bombs*.
Tilly, *Coercion, Capital, and European States*.

Questions to Consider:

1. What factors led to the medieval technological revolution in Europe?
2. How did these factors differ from those in the rest of the core?

Lecture Twenty-Two

The Gunpowder Revolution

Scope: The various elements that make up gunpowder took many centuries to be developed and formulated. Greek fire probably played a key role in the invention of gunpowder in China. The Chinese used gunpowder for guns, bombs, and rockets. Chinese-style gunpowder weapons were not very effective. It was the corning of gunpowder, first accomplished in France in the 15th century, that made guns truly world-transforming weapons. The Europeans quickly developed a more effective handgun, the harquebus, as well as a superior cannon. Both land and naval warfare were transformed.

Outline

- I. Gunpowder revolutionized war making and, in the process, transformed the world.
 - A. Gunpowder is a powerful, explosive mixture of charcoal, sulfur, and potassium nitrate. The development of these individual elements took some time.
 - B. The relationship between Greek fire and the development of gunpowder has not been fully appreciated.
 - C. The original gunpowder formula had a serious flaw—saltpeter is rare in nature.
 1. At some point, wood ashes were mixed with the saltpeter, creating potassium nitrate. This made a much more explosive ingredient that was widely available through an industrial process.
 2. This process for making potassium nitrate moved from the Near East to China during the late 11th or early 12th centuries.
- II. During the 13th century, the Chinese experimented with almost every subsequent use of gunpowder.
 - A. Taking advantage of the lethal effect of the explosion itself, the Chinese developed various types of bombs, including hand grenades and land mines.
 - B. An Arab military writer, probably of the 14th century, wrote that Europeans did not have gunpowder and that the formula should be kept from them. Needless to say, this was not to be.
 - C. By the mid-14th century, it is clear that gunpowder weapons were being commonly used throughout the core, from China to Europe.
- III. Historians have pushed back the date of the gunpowder revolution and moved its origins from Europe to the eastern part of the core.
 - A. The fact is that up to the early 15th century, gunpowder weapons were not very effective.
 - B. From the point of view of military history, the real gunpowder revolution occurred due to the process of corning.
 1. Corning involved moistening the powder with wine, vinegar, or urine and then breaking up the dried paste into tiny spheres or grains, each with the proper balance of elements.
 2. Cornd gunpowder could be stored indefinitely and detonated more efficiently, propelling a bullet or cannonball with much greater force.
 - C. It took several decades for cornd powder, and the weapons that it made possible, to gain widespread usage.
 1. In terms of its effectiveness in killing the enemy, the matchlock had little advantage over the crossbow. Both weapons competed for several decades.
 2. The harquebus eventually won out, both due to its relative ease of manufacture and use and the psychological effect of the explosion.
 3. Cannons were now small enough to place on a ship, yet powerful enough to smash a mast or blow a hole in a hull. Naval combat changed from hand-to-hand combat to cannon duels.

Suggested Reading:

Ágoston, *Guns for the Sultan*.

Ayalon, *Gunpowder and Firearms in the Mamluk Kingdom*.

Chase, *Firearms*.

Gilmartin, *Gunpowder and Galleys*.

Questions to Consider:

1. How did the second phase of the gunpowder revolution transform the gun?
2. What sort of social and political effect did the adoption of the gun have?

Lecture Twenty-Three

War at the Margins

Scope: While the core regions of Europe, Africa, and Asia had developed a common military culture, marginal regions continued to exist on each of these continents. These lacked many of the weapons advances and other military innovations of the core. There are no written sources in many cases, and we are reliant on archaeology to explore these marginal regions. West Africa is part of the core from a military perspective, but its adoption of elements such as the armored horseman and the gun was delayed some centuries. Further to the south, the Bantu had iron but lacked the sword and the horse, as well as the gun. The Malayo-Polynesian migration into the islands of Oceania led to these cultures lacking metal for weapons, though their seafaring was sophisticated. In the far north of Europe and Asia, a marginal Arctic culture arose.

Outline

- I. In most of the lectures so far, we have focused on the military and technological core. In this lecture, we will focus on the margins: those regions that were not part of the military development of the core.
 - A. Before the European expansion of the 16th century, these margins included much of central and southern Africa, the northern fringes of Europe and Asia, Oceania, and the Americas.
 1. The main differences between warfare in the margins and warfare in the core had to do with weapons technology.
 2. There are several problems in approach that have plagued the study of marginal military cultures in general.
 3. There is a general lack of indigenous written sources.
 4. There are, however, important accounts by Arabic and European travelers.
 - B. As a result, we are reliant solely on archaeology for many of these marginal regions.
 - C. Historians have focused on the core, while most scholarly work on warfare in the margins has been done by anthropologists.
 1. The attitude of most anthropologists toward the study of warfare has not progressed much since the times of Harry Turney-High.
 2. Those anthropologists doing good work, such as Lawrence Keeley, tend to focus on the origins or nature of war.
 3. We are lacking comprehensive studies of warfare in Africa, Oceania, northern Eurasia, and the Americas.
- II. Sub-Saharan Africa was much more connected to global trade—and for much longer—than is generally realized.
 - A. Military technology spread across the Sahara, although there does seem to be a delayed reaction of several centuries. In terms of military culture, these areas were part of the core.
 - B. To the south of the West African monarchies lay the original homeland of the Bantu speakers, part of the language family known as Niger-Congo.
 - C. In most of central and southern Africa, the political structure remained on the village and tribal level.
 1. In this region, the main weapons were the iron-tipped spear, the wooden mace, and the cowhide shield.
 2. The Zulu nation had a well-organized and militarized state, with warriors organized into 30 or so regiments.
 3. It is not clear whether this represents traditional Bantu military organization, an imitation of Western practice, or simply a 19th-century invention of the founder of the Zulu nation, Shaka.
- III. Let us now turn to another great migration of a language family—perhaps the most remarkable in history—the Malayo-Polynesians.
 - A. Malayo-Polynesian, or Austronesian, languages were originally spoken in Southeast Asia.
 1. There were Malayo-Polynesian migrations in early periods, but the movement seems to have intensified around 300 B.C., perhaps as a result of the growth of the Han dynasty in China.
 2. Although iron was known to the original Malayo-Polynesians, those migrating into the islands of Oceania did not have access to any metal deposits.
 3. Polynesian weapons may have been made from wood, stone, and bone, but they were very sophisticated.
 4. The Polynesians navigated accurately through the expanses of the Pacific islands without the use of the compass. They made maps and used ocean currents, but the real key was their following migrations of birds.
 - B. To the south of the Malayo-Polynesians, the military technology was definitely marginal.
 1. In Papua New Guinea, metal weapons were not used. Although there were extensive iron deposits there, the island remained in the Stone Age.
 2. In Australia, which had been inhabited as early as 60,000 years ago, the situation was even more extreme. There was no domestication of any kind. Only wooden and stone weapons were used.

- C. The far north of Europe gets almost no study from military historians. We have seen that by about A.D. 1000, the Scandinavian countries were well within the core.
1. Norse sagas tell of battles with the Skraelings, as they called the American Indians, during their colonization efforts in the New World.
 2. Despite centuries of interaction between the Native Americans and the Europeans, the use of iron weapons did not spread by trade into the New World, nor did disease.
 3. Although the Scandinavians and the inhabitants of Central Asia traded, and occasionally fought, with the far northern peoples, none of them showed much interest in conquering them.
 4. This began to change with the rise of the fur trade. The interaction between the fur trade and war is a factor we will return to several times in our series of lectures.

Suggested Reading:

Forsyth, *A History of the Peoples of Siberia*.

Fukui and Turton, *Warfare among East African Herders*, 69–95.

Vayda, *Maori Warfare*.

Questions to Consider:

1. Are there sharp divisions between core and margin from a military perspective?
2. What might explain the isolation of certain areas and the fact that they did not become part of the core military culture?

Lecture Twenty-Four

A World Apart—War in the Americas

Scope: Warfare developed in the Americas without the horse or the use of metal weapons. The introduction of the bow (or a more efficient bow) had an important effect. The recent translation of Mayan glyphs has changed our view of them from a peaceful to a warlike society. A mystery remains: that of the precontact decline of the Mayans and the Mississippian culture of North America; both may be related to warfare. Shortly before European contact, the Aztecs of Mesoamerica developed a warlike and expansionist empire about which we are fairly well informed. The Incas of South America also had a very sophisticated military system, especially with regard to fortification and logistics.

Outline

- I. There is much debate on the peopling of the Americas. The traditional view of migrants coming over the Bering Strait around 15,000 B.C. is being seriously challenged.
 - A. The strongest theory is that the migration from Asia was not by land, but by canoe. This opens up the possible dates of migration considerably.
 - B. The American Neolithic occurred completely independently of the Neolithic period in the core.
 1. Maize was domesticated as early as 7000 B.C. in central Mexico. The potato was domesticated in the Andes Mountains in South America around 5000 B.C.
 2. As in the rest of the world, agriculture led to denser population and to civilization.
 3. Around 1500 B.C., the Olmec culture developed in Mesoamerica. There are striking parallels with the development of the Uruk culture in Mesopotamia 2,000 years previous.
 - C. In both cases, urbanization occurred rather rapidly and a single city seems to have been the origin of the culture.
 1. In both San Lorenzo and Uruk, there does not seem to be evidence of conquest; the spread of the culture seems to be through trade.
 2. Although there was an elite, there is no evidence it was a warrior elite. The king's power seems to have derived from religion and the control of irrigation, not from force—a parallel to early Mesopotamia.
 3. Maize was introduced to South America from Mesoamerica around 1000 B.C., and the first civilization arose around 900 B.C.
- II. Theoretical dispute plays a larger role in the discipline of anthropology than in that of history, and such a debate has had a strong impact on the study of Native American warfare.
 - A. Many anthropologists believe that cultures need to be understood in their own terms and that attempts to create universals are simply imposed Western values. This idea has affected the study of Mesoamerican and South American warfare.
 - B. By about A.D. 200, the huge city of Teotihuacán developed in central Mexico. There is no sign of fortifications, but we do have evidence that the Teotihuacanos moved south into Mayan territory.
 - C. In South America, the geography and economy were more conducive to the development of war.
 1. The South Americans learned to exploit crops, like the potato, that grew at different altitudes.
 2. This vertical economy made it necessary to control the agricultural zones up the mountain and desirable to control connected zones.
 3. There is good evidence in the Chavin and Moche cultures of large political states with sophisticated military forces.
 4. Unlike the situation in Mesoamerica, these South American cultures developed copper metallurgy. Nevertheless, most weapons continued to be made of wood, bone, and stone.
- III. The story of the bow and arrow in the Americas is complex and problematic, and new discoveries continue to change the picture.
 - A. Until recently, the earliest firm evidence for bows in the Americas dated to around A.D. 200. New discoveries have suggested an earlier date.
 - B. World historians pay less attention to precolonial North American warfare than that of Mesoamerica or South America, a neglect that hopefully will begin to change.
 1. Around 2000 B.C., maize was introduced from Mesoamerica, and agricultural settlements grew up in a number of regions.
 2. In some cases, these settlements were quite large and had wooden and earthen defensive walls, including watchtowers.

3. Around A.D. 900, about the same time as the decline of the Mayan cultures, the large North American urban sites were mainly abandoned.
 4. Sometime between 1200 and 1400, we have the invasion of the southwest by the Navajo, who migrated from the northwest. The bow may be related to this long migration.
- C. The bow is also associated with the invasion of the ancestors of the Aztecs, the Chichimecs, into Mexico, which occurred after 1100.
1. The Aztecs seem to have developed out of the Chichimecs into a warlike and expansionist empire.
 2. The Aztecs had a dominant elite, which held political, religious, and military power.
 3. They had a sophisticated unit organization and command structure supported by a well-organized logistical structure.
 4. Brave and skillful warriors were promoted into the noble class, although this caused some unhappiness among the elite.
 5. Human sacrifice had been part of Mesoamerican civilization since its beginnings, but there is reason to think the Aztecs increased the frequency and number of such sacrifices.
- D. The bow reached South America by the 15th century. It was at this time that we see the dramatic rise of the Incan Empire.
1. It seems that the bow was not a major element in their warfare, and it is difficult to ascribe their rise to this new weapon.
 2. Rather, the Incan rise seems to have been partly due to an aggressive, militaristic culture and a powerful army supported by well-organized states.
 3. The Incans built stone fortresses deep in the Andes. The forts were connected by a series of roads and tracks, with rope bridges spanning mountain ravines.
 4. Sometime around 1300, the Caribs, who lived in northeastern South America, conquered much of the Caribbean region by sea.

Suggested Reading:

Hassig, *Aztec Warfare*.

———, *War and Society in Ancient Mesoamerica*.

Malone, *The Skulking Way of War*.

Webster, "Ancient Maya Warfare."

Questions to Consider:

1. How did the relative lack of metallurgy and domesticated animals affect warfare in the Americas?
2. What was the impact of the second bow revolution?

Lecture Twenty-Five

Renaissance and Military Revolution

Scope: A key element in all Renaissance advances was the powerful combination of the practical and the theoretical, and warfare was a critical element in this trend. Arabic influence was important, especially in medicine and cartography, but Europe soon outstripped its mentor, partly due to military needs. Advances in political and legal theory were profoundly affected by warfare. The influence worked in the other direction as well: Both Maurice and John of Nassau, key figures in Western warfare, were students of the philologist Justus Lipsius. Popular literature also featured descriptions of war.

Outline

- I. The European development of corned gunpowder, and the technological and organizational changes this brought about, had the greatest impact on not only war but also society in general.
 - A. By the 15th century, gun making and gunpowder production had already become major industries in Europe.
 1. Guns were placed on European merchant ships, which allowed them to defend themselves in a way that non-Europeans could not.
 2. The cost of gunpowder wars was one of the main drivers in the creation of the credit institutions that are the basis of the modern economy.
 3. The expense of gunpowder wars also increased the power of kings and central governments, accelerating the decline of the nobility and the rise of the nation-state.
 - B. These technological, economic, and political changes also required an intellectual revolution. This period, called the Renaissance, profoundly influenced, and was influenced by, warfare and the idea of war.
 1. There was an increased interest in the art and architecture of the ancient world, but equally important were the ideas that the new was better than the old and that technology, society, economy, and the world itself could be made better.
 2. The Renaissance idea of human perfectibility had an enormous impact on virtually every aspect of European—and ultimately, world—culture, not least on warfare.
 3. Paradoxically, the Renaissance idea of humanism and the virtue of innovation came from the Renaissance study of the classical past.
 - C. The political and military power of merchants in 15th-century Italy was a major factor in the Renaissance's developing there.
 1. A city-state run by an oligarchy of merchants was an ideal place for such development.
 2. The city-states of northern Italy, such as Venice, Genoa, and Florence, had become wealthy through their increasing control of trade with the Muslim world. The rise in wealth led to increasing warfare between them.
 3. We might tend to think of culture growing best in times of peace, stability, and strong central government, but the time of the Renaissance was a period of endemic warfare between constantly shifting alliances of small states.
- II. Neither the chivalric codes of the nobility nor the ideology of Crusade was appropriate for the newly powerful merchant city-states.
 - A. They needed a new type of code, and they found it in the study of the city-states and republics of ancient Greece and Rome.
 1. In the 15th century, two things occurred that opened up the classical past to the Italians.
 2. The first was the invention of printing, which occurred around 1450 in Germany.
 3. The second event was the decline and fall of the Byzantine Empire in the 15th century. This led to a migration of Greek-speaking Byzantine scholars to Italy, along with their classical Greek texts.
 - B. An equally important development was the discipline of philology: the method of critically analyzing manuscript copies of ancient texts and determining how they differ from each other due to centuries of recopying.
 1. As a discipline, philology included various elements that would become the basis of European scholarship, and it ultimately led to the academic system used around the world today.
 2. One element was intensive study of language. A deep and thorough knowledge of ancient Greek, Latin, and Hebrew was seen as the necessary background before one could start working as a philologist.
 3. Philologists gathered in groups, such as universities, but also communicated through books that argued for their interpretations. This led to a literature of theoretical arguments, including those on the subject of war.

- C. Though the Renaissance focus on classical texts gets the most attention, Arabic influence was also important, especially in mathematics, medicine, and finance.
 - 1. The influence of Islam on the West is often attributed to the Crusades, but most of the exchange occurred in the multicultural societies of Sicily and Spain.
 - 2. Especially important for the coming expansion of Europe was the introduction of scientific cartography from the Muslim world into Europe.
 - 3. The most important cartographer of the Middle Ages was Muhammad al-Idrisi, who worked in 12th-century Sicily.
 - 4. Another often unappreciated Islamic contribution was in political science. Muhammad al-Farabi's notion of a perfect ruler would provide the basis for the ideology of divine kingship that would play such an important part in the rise of the nation-state.

III. What made the Renaissance so important is that Europe soon outstripped its mentors. Competition among the relatively small states of Europe led to more innovation.

- A. In the Italian city-states, a new class of leaders arose that came not from traditional Italian nobility but from a new class of commoners that had grown wealthy by taking advantage of the commercial opportunities of the period.
 - 1. The Medici family was a good example of this class: They were first doctors, but they became wealthy as bankers, specifically as bankers for the pope. They became major political leaders in Florence and also military leaders and patrons of the arts.
 - 2. A key element in all Renaissance advances was the powerful combination of the practical and theoretical. Since warfare was an important part of 15th-century Western culture, naturally it became a critical element in this trend.
 - 3. This is seen most clearly in the military engineering work of Leonardo da Vinci and Niccolò Machiavelli.
- B. As the Renaissance spread, European nobles began sending their children to the new universities to learn Latin. Military commanders now shared a common literary language.
 - 1. The Renaissance study and commentary on the Greeks and Romans was not an attempt to recreate a golden age of the past but rather part of a more focused study of warfare as a science.
 - 2. The military manual of Flavius Vegetius was among the first secular books to be printed, and several editions came out in the 1470s.
 - 3. Another effect of the Renaissance was the rise of the military memoir in Europe, of which a great number were written in the 16th century.
- C. The 16th and 17th centuries in Europe were much more than just the high culture of the Renaissance and the theological debates of the Reformation.
 - 1. The invention of the printing press and the increase in literacy led to the rise of popular literature.
 - 2. It was the literature of the period, as much as the advances in cartography and shipbuilding, that inspired the European explorations that started in the 15th century.

Suggested Reading:

Arnold, *The Renaissance at War*.

Black, *European Warfare*.

Hale, *War and Society in Renaissance Europe*.

Parker, *The Military Revolution*.

Questions to Consider:

- 1. How did the military needs of 16th-century states help lead to the Renaissance?
- 2. What effects did the Renaissance have on the military culture of the 16th century?

Lecture Twenty-Six

Conquest and Colonies

Scope: Europeans used new geographic knowledge and improved ships to sail both down the coast of Africa and across the Atlantic in an attempt to circumvent Muslim control of trade with China. The Portuguese succeed in circumnavigating Africa and taking control of the Indian Ocean by force. Columbus sailed to the Americas, and the Spanish conquered the Aztec and Incan empires. The Europeans found little gold and turned to plantations, worked by slaves, to obtain wealth. The wealth from trade and the New World fueled European warfare.

Outline

- I. The Europeans did not originally intend to conquer a vast new world.
 - A. Portugal and Spain longed to reach the Chinese markets directly, rather than through Muslim middlemen.
 - 1. In the 14th century, mapmakers made the geographic knowledge of the Arabs, Indians, and Chinese available to the Europeans. Europeans began thinking about finding an alternate sea route to East Asia.
 - 2. They would need a ship capable of making very long voyages: the galleon.
 - B. European contact with Africa is associated primarily with the slave trade, but there was a very small market for slaves in Europe. There was, however, a market for slaves in the Muslim world.
 - C. By the 15th century, the Chinese had also developed large, cannon-armed vessels.
 - 1. The Chinese junk, developed during the Han dynasty, had rigging of horizontally arranged strips that allowed the ship to tack against the wind.
 - 2. These vessels were very seaworthy and used in an active trade along the coast, with Japan and with the Spice Islands.
- II. In 1492, Christopher Columbus sailed west and reached the Caribbean islands, which he mistook for Japan.
 - A. The Spanish explorers were primarily interested in establishing trade relations with China. They only gradually realized they had discovered a new continent.
 - 1. In 1518, Hernan Cortez was sent from Cuba to the mainland to build a settlement to trade with the Aztec Empire. Cortez, however, had another idea: Instead of trading, he would conquer.
 - 2. Cortez's notion of conquest derived both from the reality of the Crusading tradition and from fiction, such as the novels of Garci de Montalvo.
 - B. Historians still argue over how small Spanish armies managed to conquer the Aztec and Incan empires.
 - 1. Disease obviously played a very important role. Smallpox in particular was very virulent and destructive.
 - 2. The military advantages of the Europeans should not be underestimated.
 - 3. It was the Spanish advantage in steel weapons and armor that was most significant in their victory and is often overlooked by historians.
 - C. Another important factor was the highly stratified nature of Aztec society.
 - 1. Once the ruling class was defeated and co-opted, the Spanish were able to simply take over the work obligations imposed on the peasantry.
 - 2. Equally important was that the Spanish did not try to suppress the native aristocracy; they ruled through it, often marrying into it.
 - 3. Native American resistance to the Spanish was stubborn, and the conquest lasted over decades.
- III. During the first decades, there was considerable infighting among the Spanish and the early mixed Spanish-native aristocracy.
 - A. It was unclear whether these regions might break away and form independent states.
 - B. The Spanish were anxious to find gold in the New World.

Suggested Reading:

Brummett, *Ottoman Seapower and Levantine Diplomacy*.

Cipolla, *Guns, Sails and Empire*.

Gilmartin, "The Cutting Edge."

———, *Gunpowder and Galleys*.

Weber, *The Spanish Frontier in North America*.

Questions to Consider:

1. What were the legal and ethical justifications used by the Europeans for their conquests in the New World?
2. How can we explain the ability of small numbers of Spanish forces to conquer the huge empires of the Americas?

Lecture Twenty-Seven

The Gunpowder Empires

Scope: The use of corned gunpowder and the European-style harquebus and cannon spread rapidly throughout the core, quickly replacing the older, Chinese-style weapons in the Muslim, Indian, and steppe states, as well as in China itself. One result was the rise of the so-called gunpowder empires of the 16th century. Another was a spate of peasant revolts and social unrest. By 1600, four great empires spread across Asia: the Ottomans, the Persians, the Mughals, and the Ming Chinese dynasty. The new weapons and new ship technology also revolutionized naval warfare, but with minor exceptions these advances did not spread beyond Europe.

Outline

- I. European domination of global trade resulted in a rapid spread of its military technology around the world.
 - A. In the 15th and 16th centuries, the harquebus (or matchlock) and the cannon replaced the earlier, Chinese-derived models.
 - B. The new guns, using corned powder, had the same revolutionary impact worldwide as they did in Europe. The new type of warfare favored centralized monarchies around the world.
 - 1. Cannons made traditional castles, with their high stone, mud brick, or wooden walls, obsolete.
 - 2. The new weapons, especially the cannon, were very effective against cavalry. The impact of guns on the European knight has already been noted, but it had a dramatic effect on the steppe peoples.
 - 3. Agrarian armies could now not only stand up to steppe warriors but also consistently defeat them. After the 16th century, there were generally no more successful steppe invasions of a settled region.
 - C. The basic needs of a gunpowder army were the same everywhere.
 - 1. The production of weapons required not only a source of iron but foundries as well.
 - 2. Since foundries were needed to produce bells, a basic element in Christian worship, Europe already had the infrastructure in place for weapons manufacture. This was not the case in the Muslim or Indian worlds.
 - 3. A steady supply of gunpowder was also needed. The production of corned powder was complex and needed to be done industrially.
 - 4. One of the major advantages of the gunpowder revolution was that peasants could be trained to use guns and were thus the match of the most skilled armored horseman. But using civilians could become expensive.
- II. War's increased expense required more complex bureaucracies to collect taxes, manage the purchase of arms and powder, and pay soldiers.
 - A. It is not surprising, therefore, that this period saw the rise of gunpowder empires throughout the core. Some developed out of earlier empires, which adapted successfully to the new technology. In other cases, they were new entities.
 - B. The adoption of the new gunpowder system took power out of the hands of traditional ruling classes.
 - 1. The 16th century saw a growing number of internal conflicts driven by new military technology, including peasant revolts, religious wars, and regional uprisings.
 - 2. During the 16th century, serious peasant revolts broke out in England, Ireland, Spain, Germany, Sweden, Finland, Hungary, Croatia, and Slovenia. There were also similar revolts in the Ottoman Empire.
 - C. By the beginning of the 17th century, four huge empires stretched across the core: the Ottoman Empire, the Persian Empire, the Mughal Empire, and the Chinese empire.
 - 1. Over the course of the 17th century, these empires tended to increase in power due to the rise of militarily skilled and aggressive rulers.
 - 2. To be truly effective, the new technology required a sophisticated bureaucracy supporting large, professional armies directed by a strong central monarchy.
 - D. The new gunpowder weapons, especially the cannon, had a dramatic impact on war at sea as well as on land.
 - 1. The biggest difference between the European warship and that of antiquity was in its primary weapon: A large gun, placed in the bow, replaced the ram.
 - 2. In order to man the oars of the galleys without having to pay the high wages common in antiquity, navies of the 16th century turned to galley slaves, who were generally either condemned prisoners or prisoners of war.
 - 3. Why did the still wealthy and powerful Asian states of the 16th and 17th centuries not adopt the galleon, though they readily borrowed land weaponry?
 - 4. It may be that they did not have the same incentive to take on the tremendous capital investment that the Europeans did.

Suggested Reading:

Cook, *The Hundred Years War for Morocco*.

Davies, "The Development of Russian Military Power."

Gommans, *Mughal Warfare*.

Murphey, *Ottoman Warfare*.

Questions to Consider:

1. Why did the adoption of European matchlocks lead to larger and more powerful empires throughout the core?
2. What were the social effects of the rise of the gunpowder empires?

Lecture Twenty-Eight

More Holy Wars

Scope: The 16th and 17th centuries were characterized by a series of violent religious wars. There was fighting between Christians and Muslims, primarily between Catholic Spain and Portugal on the one hand and forces backed by the Ottoman Empire in North and East Africa, the Mediterranean, the Near East, and elsewhere on the other. There was also fighting between the Muslim Mughals and Hindus in India, one result of which was the rise of Sikhism. There were also intrareligious wars, such as between the Shi'ite Persians and Sunni Ottomans in the Near East and between the Catholics and the Protestants in Europe.

Outline

- I. The 16th and 17th centuries saw religious struggles around the globe.
 - A. In Spain, Aragon and Castile, whose monarchies had recently been united, did not see the reconquest of Christian lands as ending with Spain.
 - 1. After expelling the Spanish Jews in 1492, they invaded North Africa.
 - 2. Of course, religion was not the only motivation for these wars, and there were cases of alliances crossing religious lines.
 - 3. By the end of the 16th century, the attempted reconquest of North Africa had failed.
 - 4. The region would remain under Muslim rulers until the colonial expansion of the 19th and 20th centuries.
 - 5. This failure can be attributed primarily to one factor: the intervention of the forces of the Ottoman Empire.
 - B. If we look back to the early 15th century, the Ottoman rulers did not seem to have been very good candidates to lead a religious war.
 - C. For centuries Ottoman rulers abandoned any interest in Western civilization and took their role as defenders and expanders of Islam very seriously.
 - D. Ottoman success in the 16th century was primarily due to the superiority of their army and navy.
 - 1. They had been early advocates of the gun and quickly adapted to the new European gun technology, developing their own arms industry.
 - 2. The Ottoman navy was excellent, although they did not adopt Western-style ships. The Ottoman army developed very effective cavalry.
- II. The 16th and 17th centuries also saw religious wars in India between Muslims and Hindus.
 - A. The conquest of the Mughal emperors brought Muslim rule over most of the subcontinent.
 - 1. Like the first rulers of the Ottoman Empire, the early Mughal rulers were very tolerant and cosmopolitan.
 - 2. This tolerance ended with the reigns of Jahangir and Aurangzeb, who destroyed Hindu temples, killed those who resisted, and forcibly converted Hindus to Islam.
 - 3. One of the difficulties that Hinduism faced in fighting Islam was the lack of a common ideology of religious warfare.
 - 4. To some extent, the god Rama became a monotheistic figure who could struggle with Allah, but Hinduism did not develop a clear sense of itself as a religion until the 19th century.
 - B. The relative inability of Hinduism to resist the Muslims was one factor in the rise of Sikhism in northwest India.
 - 1. Sikhism had originally arisen in the early 16th century as a peaceful movement within the Hindu tradition, but it was also open to influences from Islam, especially Sufism.
 - 2. When the persecution of Hinduism began under Aurangzeb and Jahangir, the Sikhs were included.
 - 3. The sixth Sikh Guru, Har Gobind, militarized Sikhism in response to these assaults. He armed his followers and defeated the Mughals in a series of battles.
 - 4. The transformation of initially peaceful religious movements into militant ones is a process that we have already seen, for example, in Christianity.
 - C. The Ottomans not only fought Christians but also suppressed the Shi'ites and other Islamic sects.
- III. The Catholic nations of Europe faced a significant threat in the Protestant Reformation.
 - A. While the Reformation was a theological movement, its success or failure was decided in large part on the battlefield.
 - 1. Many nobles and kings adopted the Protestant faith due to conviction, but it also allowed them to increase their autonomy and to seize valuable church lands.
 - 2. This provided the economic means to raise the new-style armies, and the new religion provided a means of motivating the peasant soldiers.

3. The century-long Catholic-Protestant wars culminated in the cataclysmic Thirty Years' War of 1618–1648 that devastated central Europe.
 4. The war finally ended with the Treaty of Westphalia, which determined the religious boundaries of the two religions in Europe that have lasted into the 21st century.
- B.** The ideas on war of Martin Luther, the founder of Protestantism, have been very influential.
1. In his essay *On War against the Turks* (1528), Luther attacked the idea of pacifism, already a growing tendency among Protestants.
 2. Luther argued that only a truly Christian (that is, Protestant) army could and should defeat the Muslims.
 3. He also stated that a holy war could not have any secular motives, such as gaining wealth or revenge. This view parallels, ironically, the Muslim theology on jihad.
 4. Luther insisted that war could not be used to compel conversion. While states could justly make war for Protestantism, individuals remained free to practice their own faith.
- C.** The Protestant Reformation and religious wars shook the social fabric of Europe.
1. A series of peasant revolts rolled across Europe in the 16th and 17th centuries, although none of them were successful.
 2. Peasants took Protestantism to mean that all Christians, or occasionally all men, or very occasionally all people, were created equal and that nobility should be abolished.
 3. The nobility, even the Protestant nobility, did not agree—and neither did Luther, who wrote *Against the Murderous, Thieving Hordes of Peasants* (1525).
 4. The idea of the Christian equality survived among the English Dissenters, who, although small in number, played an important role in the development of the modern nation-state.

Suggested Reading:

Housely, *Religious Warfare in Europe*.

Parker, *Europe in Crisis*.

Questions to Consider:

1. In what ways were the Sunni-Shi'ite conflict and the Catholic-Protestant conflict similar—and different?
2. What were the consequences of the Portuguese-Ottoman “world war”?

Lecture Twenty-Nine

The Rise of the Regiment

Scope: The regiment became the basis for European military organization. It developed out of the introduction of drill and the raising of royal armies. The flintlock musket, socket bayonet, and advances in cannon and cavalry tactics resulted in a standard form of European regiment. Officers and soldiers were drawn from preexisting classes but formed a military caste distinct from civilian society. A regimental culture developed, with distinctive self-identity. This culture increased combat effectiveness and remained remarkably loyal to established regimes.

Outline

- I. By the 19th century, Western militaries could not be decisively beaten by any other type of army. In this lecture we explore the changes in military technology and organization that brought about this shift.
 - A. Let us begin with the infantry.
 1. The French invented the flintlock musket around 1610, and by 1630 it was in use throughout Europe.
 2. Since it was rapidly adopted by Europeans, the flintlock might seem to be an obvious improvement over the matchlock, but it had a shorter range and was less accurate.
 3. To understand why the Europeans adopted the flintlock musket, we jump back to the 16th century, when Maurice and John of Nassau applied the Roman idea of drill to the matchlock gun.
 4. They came up with the idea of breaking loading and firing down into steps, so it could be done more quickly, and volley fire became possible.
 5. This drill made the adoption of the flintlock make sense, though just like harquebusiers, the new musketeers had to be protected by pikemen.
 6. Drill also had an ideological component. It fit the Renaissance idea of reconstructing ancient warfare, with soldiers fighting in disciplined ranks and files, not as individuals.
 7. Individual fighting, even with guns, was preferred by aristocrats, explaining the reluctance of non-European states to adopt the flintlock.
 - B. The origin of the bayonet is obscure, but it had been adopted by 1650. Armies could then dispense with pikemen.
- II. What gave European armies such a great advantage was not just technology itself but the distinctive military culture that developed out of the technology.
 - A. This culture was centered on the regiment.
 1. In 1445, the French king established a royal army, organized into regular units. Around 1500, Fernández Gonzalo de Córdoba organized companies of matchlockmen and pikemen into units called columns, which the French adopted and renamed regiments.
 2. Maurice of Nassau organized his companies into units of around 500 men called battalions, three of which now made up a regiment.
 3. By the end of the 17th century, regimental organization was fixed. It has remained relatively unchanged. A colonel commanded the regiment, aided by a major and a sergeant major.
 4. Regiments were made of one, two, or three battalions, each with companies of 100 to 200 men, commanded by a captain, aided by a lieutenant and a sergeant.
 - B. Now let us turn to the European developments in artillery.
 1. Around 1494, the French put the barrel of a cannon on two wheels, allowing it to be moved easily during combat.
 2. In the 16th century, better metallurgy meant barrels could be made in various sizes, from very small and light to very large siege cannons.
 3. In the 17th century, armies made artillerymen into regular soldiers and organized them into units called batteries, instead of companies.
 4. In the 18th century, Jean-Baptiste de Gribeauval vastly improved artillery through a series of innovations.
 - C. There was little technological change in European cavalry.
- III. The regimental system allowed armies to be more mobile and project more firepower.
 - A. The movement of infantry and the handling of artillery was complex and required professionals.
 1. The regiment was a key element in a purely professional military introduced throughout Europe, especially in the new nation-states.
 2. What differentiated the European regiment from other 17th- and 18th-century units around the world was its incessant drill.

3. Roll call became a part of the routine, and soldiers also practiced marching, a custom that developed into the military parade.
 4. Barracks separated the soldiers from the population as a whole, fostered discipline, and developed a distinct military culture.
- B.** Officers received, often after a cash payment, a commission from the king. Soldiers were recruited from peasants and urban poor.
1. Soldiers were recruited into a particular regiment, but their military oath was strictly to a king or a republican government.
 2. Being placed on the regiment's rolls is what made one a soldier, thus the term "enlisted man."
 3. Soldiers were subject to military law, not to local courts, which protected them from civilians but subjected them to draconian punishments.
- C.** A military culture arose, distinct from civilian society. The regiment was an important element in this culture.
1. Regiments had names and/or numbers, and a sense of competition with other units was fostered.
 2. While loyalty to the monarch was stressed through oaths and ceremonies, distinctive regimental flags and uniforms, as well as tradition and songs, developed.
 3. Despite the enormous gap between them and soldiers, regimental officers wore the same uniform as their men, with appropriate trimming, of course.
- D.** A regiment might stay in an overseas garrison for decades and put down strong local roots.
1. Private soldiers employed native servants and often took local women as wives, although usually not legally recognized ones.
 2. The use of barracks and cantonments kept European soldiers from developing a close connection to locals. Racism was encouraged and formed another barrier.
 3. Colonized peoples were recruited to supplement European troops.
 4. The children of European soldiers and local women were ostracized by both societies but found employment in colonial militaries.
 5. Colonized elites rarely served as commissioned officers, but colonial regiments did use locals as noncommissioned officers.
- E.** At the end of the 18th century, due to the French Revolution, there was a shift away from professional forces.
1. The French instituted mass conscription out of the crisis of 1793.
 2. Weapons for these new units were supplied by the state. The conscripted units were national rather than regional.
 3. The military appointed officers, and this became the model for the modern conscripted army.

Suggested Reading:

Anderson, *War and Society in Europe*.

Corvisier, *Armies and Societies in Europe*.

Duffy, *The Military Experience in the Age of Reason*.

Lynn, *The Bayonets of the Republic*.

Ralston, *Importing the European Army*.

Questions to Consider:

1. In what ways was the regimental system superior in terms of combat effectiveness and political control?
2. What were some of the cultural effects of the regimental system?

Lecture Thirty

The Wooden World

Scope: The so-called wooden world represented a global society based on seafaring. Warships ranged from sloops, with perhaps a dozen guns, to a first-rate ship of the line with a hundred or more. Men-of-war required educated officers and skilled crews willing to live in the horrendous conditions on board. Thus, a specialized culture of seamen was needed from which to draw crew. Sailors were drawn from around the world, and crews were integrated. A special naval culture developed, which was very cosmopolitan. European states developed naval schools and research institutes. Non-Western cultures did not adopt fully-rigged warships, although they had the resources to do so.

Outline

- I. The fully-rigged sailing ship armed with cannons gave rise not only to a new method of ship-to-ship fighting but also to an entirely new culture.
 - A. The wooden world was made up of thousands of ships manned by hundreds of thousands of men.
 1. The European man-of-war was a complex system. It had three main sails and several levels of decks with various distinct purposes.
 2. The English organized categories for men-of-war, called rates. A first-rate ship of the line had a hundred cannons or more and carried an 800-man crew.
 3. Crewman had to have high level of skill and training.
 - B. Command on a ship actually derived from two separate systems.
 1. The ship's captain originally commanded the soldiers who fought on board. The captain later became the commander of the crew and the ship as a whole.
 2. As the ship's company was the organizational equivalent of the army's regiment, the naval captain was the equivalent of the army's colonel.
 3. In the early days, most naval officers were nobles, but eventually more commoners became naval officers.
 - C. The living conditions on ships were truly horrendous.
 1. There was little space and less privacy, and the food on board was monotonous and often spoiled.
 2. Scurvy, caused by a lack of vitamin C, was common.
 3. Fresh water often ran short and had to be rationed. Beer was frequently used.
 4. Liquor was also issued to sailors, often in the form of brandy, a cheap and powerful drink.
 5. Discipline was very harsh, involving cruel whippings for even minor offenses.
- II. Navies needed sailors who accepted these harsh conditions but were also highly skilled.
 - A. This led to a fundamental difference between the regimental system and the wooden world.
 1. A regiment was either European or colonial. Naval crews, however, were recruited worldwide.
 2. Some ethnic groups were common: Basques, East Indians (called Lascars), Malays, Hawaiians (Kanakas), and Africans and people of African descent.
 3. Commissioned officers were drawn almost exclusively from Europeans, but it was not possible or desirable to segregate the crew of a man-of-war.
 - B. The captain had the power of life and death over the crew at sea and could, and did, hang sailors without a trial.
 1. Naval officers often had to function not only as military commanders but also as diplomats and traders.
 2. They had to navigate accurately with primitive equipment, and as accurate written logs were vital to navigation, the officers had to be educated.
 3. Due to the horrendous conditions, and attractive alternatives such as Pacific islands or piracy, mutinies were not uncommon.
 4. Naval ships carried marines, who were technically part of the navy but uniformed, armed, and drilled in the army's regimental style.
 5. Marines helped in the fighting, but their main purpose on board was to protect the officers from the crew and to suppress mutinies.
 - C. European merchant vessels remained heavily armed.
 1. Long sea voyages, piracy, and the need to put into hostile ports for resupply made armed merchantmen necessary.
 2. The mercantile companies maintained their own fleets of warships.

- D. The change to the galleon had a dramatic effect on every aspect of European naval warfare.
 - 1. Small groups of ships, or even individual ones, were sent on expeditions.
 - 2. This demanded a much more sophisticated kind of bureaucracy, which would not only build and maintain ships but also keep track of ships and naval units.
 - 3. In 1628, the British organized the Admiralty, which served this function, and eventually all European states with navies adopted them.
 - 4. The Admiralty mixed both civilian employees and military officers in various boards and offices. This type of higher military organization began much earlier in navies than in armies.

III. Large units, such as the army's brigades and divisions, never developed in the navies of the wooden world.

- A. A fleet was of larger or smaller size depending on the mission and was commanded by a fleet admiral.
- B. Just as a distinct military culture developed out of the army, European navies fostered a culture of the sea.
 - 1. There was a legal distinction between soldiers and sailors. Under European rules, naval and army prisoners could not be exchanged for each other.
 - 2. Navies had their own customs and terminology.
 - 3. The multiethnic nature of the crews in the 18th century meant that words and customs were picked up from all over the world.
 - 4. An example is both the practice of tattooing and the word itself, borrowed from the Polynesians. It was for many years characteristic of sailors, though it has recently spread quite widely.
- C. There was also a common culture among naval officers.
 - 1. Memoirs and accounts of naval battles led to a literature of naval fighting.
 - 2. The lack of recreation on long sea voyages led to officers taking an interest in science.
 - 3. Studying and writing about the foreign cultures they encountered was also a common hobby.
- D. Both the Chinese Ch'ing dynasty and the Ottoman Empire had the money to build a navy and access to the maritime population needed to build crews.
 - 1. The decision not to build fleets around the man-of-war was a conscious policy of non-European states.
 - 2. It was perfectly rational: They did not have a pressing economic or political need to build and maintain an expensive European-style navy.

Suggested Reading:

Black and Woodfine, *The British Navy and the Use of Naval Power*.

Miller, *Broadsides*.

Palmer, *Command at Sea*.

Questions to Consider:

- 1. How did the organization and methods of European naval warfare in the 18th century differ from that of the armies of the same period?
- 2. Why did non-European powers not adopt the naval technology and methods of the Europeans?

Lecture Thirty-One

The Global War to Control Trade

Scope: In the 17th and 18th centuries, the European powers fought a global war over control of the world's ocean-borne trade. The development of mercantile capitalism in Europe revolutionized economic relations. Much of the European expansion and warfare was carried out by chartered companies, which employed their own armies and navies. Commerce raiding and the seizing of fortified trading posts played an important role in these wars. Wars were fought over the silver trade, the fur trade, and especially the highly lucrative slave plantations and the slave trade. Both piracy and smuggling grew in this period, especially in the Americas and in China, and became military and political factors.

Outline

- I. A global war developed during this period over control of the world's trade.
 - A. Much of the fighting did not involve Europe's regular armies and navies but rather private armies controlled by profit-making corporations.
 - 1. Which particular European state dominated the world's trade was not as important as its domination by an economic system: capitalism.
 - 2. This was not free-market capitalism but mercantile capitalism, closely tied to the growth of the nation state.
 - 3. It might be more useful to call this armed capitalism, as it was characterized by a free use of military force.
 - B. Armed capitalism was closely tied to the development of joint stock companies, pioneered by the Amsterdam Stock Exchange.
 - 1. This system allowed smaller states to benefit from colonialism with little cost to the taxpayers.
 - 2. The companies also provided a means for upward mobility.
 - 3. The mercantile companies were not independent; their boards of directors included government officials.
 - C. The mercantile companies engaged in warfare, both with locals and with other Europeans.
 - 1. Company armies used both European troops and native troops.
 - 2. Trading posts, called factories, were fortified and were garrisoned by the private companies' forces.
 - 3. The companies operated fleets made up both of armed merchantmen and warships.
 - 4. Regular army regiments and naval men-of-war also took part in this global war, as did local militia and native forces.
- II. Sea battles played little role in the fighting.
 - A. A new kind of European naval war developed: commerce raiding.
 - 1. Commerce raiding was mostly done by privateers, who were a sort of legalized pirates.
 - 2. Forts were a major part of colonial presence and were virtually all along the coast.
 - 3. Both the coastal location and the design of these forts derived from the fact that they were designed to defend against naval guns and amphibious attacks.
 - B. The warfare of the period makes more sense if we consider economic factors. The first such was silver.
 - 1. China remained the engine of the world's economy and the key to the global silver trade.
 - 2. Dennis Flynn and Arturo Giráldez have challenged the traditional explanation that European trade was driven by a desire for Chinese goods.
 - 3. They argue the trade was due to arbitrage—that is, silver's greater value in China. It was the Chinese adoption of the silver standard that led to most of the silver mined in the world going to China.
 - C. The enormous global demand for fur created another world trade system.
 - 1. The fur market drove the expansion of Russia across Central Asia and into Alaska.
 - 2. In the 16th century, France conquered Canada.
 - 3. The French and English struggled over North America's lucrative beaver trade, trading fur principally for guns with already established Indian states.
- III. Other sources of European wealth were cash crops, such as sugar cane, tobacco, indigo, coffee, and cotton, worked by slave labor in a plantation system.
 - A. Because Caribbean colonies were so profitable, they were the targets of military takeovers.
 - 1. England, France, and Holland challenged Spanish control in the 17th century, and the Caribbean islands changed hands many times.
 - 2. Slave plantations represented a large part of the income of England, Holland, and especially France. We should bear in mind what paid for these powers' armies and navies.

3. Slavery relied on the slave trade. There were actually two different slave trades, one official and one that involved smuggling.
 - B. Caribbean piracy grew out of the practice of privateering that is called *guerre de course*, or commerce raiding.
 1. Governments issued letters of marque that allowed armed merchant ships to legally capture enemy ships.
 2. The English and Dutch used letters of marque to fight an inexpensive commerce war against the Spanish.
 - C. American silver intended for European use had to travel past the Caribbean islands and Florida.
- IV. Privateering became more profitable if a ship's captain and crew cut out the European investors.
- A. This was the birth of Caribbean piracy.
 1. Historians differentiate the settler colonies of North America from the Caribbean slave colonies, but in fact they were closely tied economically.
 2. North American colonies provided ports for both privateers and pirates. Corrupt local officials profited greatly, as did the entire community.
 3. Without the criminal or quasi-criminal activity of the smugglers, privateers, and pirates, it is unlikely the New England colonies would have survived.
 - B. Piracy and smuggling were global activities.
 1. The so-called Japanese *wokou* pirates controlled much of the China Sea. Many were actually Chinese.
 2. Just as the Caribbean pirates shared their wealth with port officials in New England, many Ch'ing coastal authorities were in league with the *wokou* pirates.
 3. Since the Ch'ing had disbanded their navy in the 1680s, they used the pirates as a contract navy, one might even say as privateers, to harass European traders.
 - C. In the early 17th century, North African pirates using European-style ships ventured into the Atlantic, raiding England and Scandinavia to capture slaves.
 - D. Due to various factors, the Spanish began to decline in military power. Great Britain tried to take over the valuable Spanish colonies, especially their silver mines.
 1. During the War of Jenkin's Ear (1739–1743), the British unsuccessfully attacked Cartagena, Havana, and Saint Augustine, the keys to all of Spanish America.
 2. In 1756, the Seven Years' War broke out in Europe. This led to a truly global war, with the British fighting the Spanish and French on land and sea.
 3. The British again made failed attacks on Spanish America but succeeded in driving the French out of both India and Canada.
 4. The Royal Navy became the most powerful fleet in the world and would remain so for 150 years.

Suggested Reading:

Elliot, *Empires of the Atlantic World*.

Peers, *Warfare and Empires*.

Russell-Wood, *The Portuguese Empire*.

Questions to Consider:

1. What were the driving forces behind European imperialism in the 17th and 18th centuries?
2. How did the rise of "industrial" slavery lead to imperial warfare?

Lecture Thirty-Two

Warfare and the Nation-State

Scope: The development of the nation-state revolutionized politics and warfare. Key to the nation-state was the ability of the king to centralize power and create a civil bureaucracy and professional military. The ideologies of national citizenship and national religious identity were also vital. New economic structures, such as the Bank of England, developed to pay for war.

Outline

- I. The nation-state was effective as a political system because it successfully integrated different elements in society both functionally and ideologically.
 - A. To better understand this, let us look at those European states such as France, England, and Holland that succeeded in becoming nation-states, and also one that did not.
 - 1. Poland-Lithuania not only failed to become a nation-state—by the end of the 18th century, it had disappeared entirely.
 - 2. While few have heard of Poland-Lithuania today, in the 16th century it was the most powerful state in eastern Europe.
 - B. What led to national success was not military victory, but rather the organization of the state.
 - 1. In France, Louis XIV took direct control of the government.
 - 2. The power of the nobles was not eliminated; rather they were turned into agents of the monarchy.
 - 3. Government inspectors made sure that commissioned officers followed government regulations.
 - C. In England, a similar process occurred.
 - 1. English nobility served in government or in the military, in institutions firmly controlled by the government.
 - 2. Holland developed a federal republic.
 - 3. Both England and Holland had small but professional armies that integrated the nobility into its command structure.
 - 4. Aristocratic ideals of honor and glory were maintained but contained within the culture of a professionalized military.
 - D. Financial control of the military was firmly in the hands of the central government.
- II. The parliament was an important institution of the nation-state.
 - A. It integrated wealthy nonnobles, especially merchants, into the state's political structure.
 - 1. In France this occurred mainly in the provincial parliaments. In England there was only a central parliament, but the effect was the same.
 - 2. Also vital to the nation-state's success was an ideology in which nationality became more important than class or religion.
 - B. Religion played an important role in national identity.
 - 1. Nevertheless, in a successful nation-state, religion was always subordinated to the state.
 - 2. In the modern law of war there could be just and unjust wars, but no holy wars.
 - C. France fostered an image as the protector of the Catholic Church, but its national interest always trumped religion.
 - D. England went through a religious struggle, but in the end state literally took over the church.
- III. The key element in the creation of a successful nation-state was money.
 - A. The centralization of government was expensive, and as only the central government could wage war, this became a major part of the budget of every nation-state.
 - 1. Nation-states developed methods to prevent local officials from gaining access to taxes. Poland-Lithuania did not.
 - 2. More than taxes, it was the mercantile capitalism that brought wealth to nation-states. For this to work, merchants had to be given much more prestige and power.
 - 3. France, England, and Holland all saw increased wealth, power, and prestige of the merchant class.
 - 4. Tension between nobles and merchants prevented Poland-Lithuania from taking advantage of this mercantile expansion.
 - B. The costs of war, however, exceed tax revenues.
 - 1. There were no financial institutions large enough to lend governments enough money.
 - 2. As a result, the wars of Louis XIV bankrupted France on several occasions.

3. The English solved this credit problem. The Bank of England was founded in 1694 with a war loan to the government.
4. This central bank laid the foundation for deficit spending, creating the modern nation-state and the modern economy.

IV. The new nation-states followed different patterns.

- A. A remarkable one was Prussia.
 1. Prussia participated in a series of wars that culminated in Poland-Lithuania ceasing to exist.
 2. Under Frederick the Great, the Prussian state became almost entirely organized around war.
 3. Indeed, Prussian was an invented nationality. Its early subjects were Brandenburgers, but the ruling dynasty, the Hohenzollerns, took the title king of Prussia.
 4. The army became the Prussian army and its soldiers Prussian, creating a new nation.
- B. The new nation-states became the scene for changes in both politics and economics.
 1. We will focus on two examples in England.
 2. After Parliament's victory in the English Civil War, there was considerable debate as to what government would replace the monarchy.
 3. To discuss this, the New Model Army formed an Army Council, made up of two representatives elected from each regiment, plus the officers.
 4. In October 1647, representatives of five regiments published the Agreement of the People, a constitutional proposal for a representative democracy—the first in modern history.
 5. This document set out not only voting rights but also equality for all persons (remarkably not just men) and freedom of religion.
 6. The Army Council adopted a more conservative counterproposal, but the ideas in the Agreement of the People influenced the development of modern democracy.
- C. The second intellectual revolution in England, or rather Scotland, was the development of free trade theory.
 1. The first part of Adams Smith's *Wealth of Nations* (1776) was a study of the economics of war.
 2. Smith argued that the wealthiest countries would win wars and predicted that, given a free market, the ever-increasing cost and needs of war would improve financial instruments and create new industries.

Suggested Reading:

Brewer, *The Sinews of Power*.

Hui, *War and State Formation*.

McNeill, *The Pursuit of Power*.

Questions to Consider:

1. What were some of the essential military elements in the rise of the nation-state?
2. Why did the nation-state only develop in Europe?

Lecture Thirty-Three

War and the Making of the Americas

Scope: Large claims by European powers were often theoretical, as many areas remained under native control. In Spanish America, power was held by the descendents of Europeans and native nobles. Free blacks and mestizos provided militia forces. Powerful native groups limited Spanish colonization. The English, French, and Dutch created a trading model, exchanging European goods for furs. The introduction of the horse and gun created powerful Indian confederations. The British attempt to get the American colonies to contribute to the costs of a trade war with France helped lead to the American Revolution. In the early 19th century, most of Spain's colonies gained their independence.

Outline

- I. By 1600, most of the Americas had been claimed by European powers.
 - A. Maps showed the vast region of Louisiana as being French.
 - 1. As late as 1800, however, the French actually ran very little of this territory. Indian confederations controlled most of it.
 - 2. Similarly, Spain claimed much of what is now the southwestern United States but only governed a small portion.
 - 3. The Pacific Coast region was claimed by three nations, Spain, Britain, and Russia. It is doubtful that the native population was even aware of this fact.
 - B. Europeans are often seen as the only agents, especially in military terms, in colonial history, and the native populations and African slaves are seen as passive victims. The story is more complex.
 - 1. Much Spanish wealth in the New World derived from South American mines worked by African and Indian slaves. How were the Spanish able to maintain their control?
 - 2. Descendents of the Incan aristocracy were given status as nobility and became landowners. They provided militia soldiers from among their Indian retainers, just as they had in preconquest times.
 - 3. In Mexico, the Aztec nobility had been absorbed into the Spanish nobility.
 - 4. Since there was no longer a need for African slaves in Mexico, a large free black population developed, many of whom served in militias.
 - 5. In addition, European-Indian intermarriage created a class called mestizos, who also formed an important element in militia forces.
 - C. The Spanish had difficulty in conquering and controlling regions to the north and south due to native skill with the horse and gun.
 - 1. The Mapuche or Araucanians kept the Spanish out of Chile and blocked their expansion into Argentina.
 - 2. The Pueblo Revolt of 1680 drove the Spanish out of northern New Mexico.
 - 3. While the Spanish tried to keep firearms out of the hands of the native peoples, the French, English, and Dutch openly traded guns when they arrived in North America.
 - 4. By 1648, the Mohawk tribe had 800 guns, enough to arm virtually every warrior.
 - 5. Since the Quakers in Pennsylvania did not want to serve in a militia, they contracted with the Delaware Indians to protect their western frontier.
- II. The introduction of the horse into the Great Plains made the large-scale hunting of the buffalo possible for the first time.
 - A. The plains also provided a trade route between the Northwest and Spain, bypassing the European mercantile rules.
 - B. The Indian culture that developed around the Great Lakes and into the plains was not a traditional one, but rather was an extension of the capitalist system of Europe.
 - 1. The Plains Indian was anything but the typical example of a primitive warrior as argued by Harry Turney-High. Most North American natives were part of the global system from the 16th century onward.
 - 2. A mixture of European and Indian styles of warfare developed, both from hostile activities and from individuals moving from one culture to the other.
 - 3. The interaction between Native Americans and Europeans was complex, on both an individual and a group level.
 - C. Let us now turn to the enslavement and transportation of millions of Africans to the New World.
 - 1. As early as the 16th century, many slaves had escaped to form the Maroon states of Latin America.
 - 2. The vast majority of the Africans and their descendents in America, however, remained in slavery until the 19th century.

3. Obviously, slavery and slave economy is a very complex subject, but let us focus on one example to bring out the importance of armed force in the slave system.
4. The French colony of Saint Domingue contained some 750,000 slaves. How did only 32,000 whites and free blacks control this population?
5. Virtually every male in the colony who was not a slave guarded the slaves. In addition to regular regiments sent to garrison these places, every able-bodied free male belonged to a militia.
6. Even so, extraordinarily brutal means were needed to keep the slave population under control.

III. The global war for trade between the French and the English was also fought in North America, where it was called the French and Indian War.

- A. Britain's attempt to get the American colonies to pay part of the cost of this war led to the American Revolution.
- B. We shall not discuss the American Revolution in detail, but several factors are important to note.
 1. A federal force, the Continental Army, supplemented the militia. This was a major element in the development of the federal system.
 2. In the 1770s, the French launched a secret operation to supply gunpowder and guns to the Americans, long before they sent troops to aid the new United States.
 3. Another factor was the large number of educated, skilled, and ideologically motivated leaders who were willing to join the Revolution.
 4. A new type of military figure developed during the Revolution: the self-made general.
- C. The fact that the Continental Army was willing to disband itself after the war, not at all a foregone conclusion, was a very significant event.
 1. The military forces of the new United States were used to put down rebellions and to attack Indians.
 2. The later had mixed success: While the Iroquois were defeated during the Revolution, the Miami Indians wiped out almost the entire federal army in its first expedition.
 3. In the North the militia system began to decay as slavery was abolished, but in the South the need for slave patrols kept it active.
 4. One remarkable feature of the new republic was the first formal recognition of conscientious objectors, in response to a request by the Quaker Assembly in 1789.
- D. During the 19th century, the South American colonies successfully broke with Spain.
 1. These wars of independence led to civil wars, wars between the new states, and revolts both by political parties and of indigenous peoples.
 2. In the first few decades of the century, the European population was busy fighting each other, often with Indian allies. The Mayans of the Yucatan were able to gain independence for decades.
 3. As time went on, the new Latin America republics were more aggressive than the Spanish had been in establishing their authority over native peoples.
 4. By 1820, when most colonies had become nation-states, we can consider the Americas part of the West, especially in military terms.

Suggested Reading:

Archer, *The Wars of Independence in Spanish America*.

Prucha, *The Sword of the Republic*.

Starkey, *European–Native American Warfare*.

Ward, *The War for Independence*.

Questions to Consider:

1. What was the role of slavery and the fur trade in the development of the Americas?
2. Why did the British colonies gain their independence before the Spanish ones?

Lecture Thirty-Four

War and the Unmaking of Africa and Asia

Scope: Most of the gunpowder empires of Asia, such as the Ottomans and Chinese, remained in control up to 1800. This was also true of smaller states such as Japan and Korea. India was the exception, though British attempts to expand to the northwest were thwarted. Asian armies were still capable of impressive conquests in the 17th and 18th centuries, while retaining the matchlock and their traditional military structure, especially a reliance on cavalry. Initially open to Western innovation, the Ottomans and Ch'ing were unwilling to adopt the regimental model. In West Africa, states demanded modern flintlocks in exchange for slaves and used them to keep the Europeans at bay. In central and East Africa, however, the introduction of guns had a destabilizing effect.

Outline

- I. In this lecture, we explore the situation in Asia and Africa in the 17th and 18th centuries.
 - A. European control in Asia and Africa during the 17th and 18th centuries was not extensive, even in regions they claimed.
 1. Much of Russia's Asian empire was actually under the control of Siberian, Turkish, and Mongol tribesmen.
 2. The Spanish Philippines and the Dutch East Indies contained numerous independent states, mainly Muslim sultanates.
 3. Australia and New Guinea had only a handful of small settlements on their coastlines. The native peoples controlled the interior.
 4. Little of the Pacific had been explored by 1800, and virtually all of the islands of Oceania were independent.
 - B. Most of the empires established in Asia during the 16th and 17th centuries resisted the Europeans.
 1. Only fringe areas of the Ottoman Empire were lost to Russia and Austria until the 1820s.
 2. Ch'ing China actually expanded its realm in the late 18th and early 19th century.
 3. Both the Japanese and the Koreans kept the Europeans out.
 4. While the British had taken control of most of India by 1800, their attempt to move to the northwest was stopped first by the Sikhs and then by the Afghans.
 - C. Throughout the 18th century, the armies of India, Persia, and China continued to use matchlocks, instead of adopting the flintlock.
 - D. The Asian core empires also differed in how they raised their officer corps.
 1. In the Ch'ing China, the officers of the Green Standards gained promotion through examination, but testing was solely on Chinese military classics.
 2. The last major Chinese military theorist was the 16th-century Ming general Ch'i Chi-kuang. After the 17th century, military officials were educated, but not in a way to encourage military innovation.
 3. Asian armies, however, were still capable of impressive conquests into the 17th and 18th centuries.
 4. In the 17th century, Aurangzeb brought the Mughal Empire to its greatest extent, conquering to both the northwest and the south.
 5. In the 18th century, the Chinese conquered Dzungaria (northern Xinjiang); defeated the Burmese, Vietnamese, and Tibetans; and marched over the Himalayas into Nepal.
- II. Despite their victories, however, a comparison with European armies of the same period shows that the Asian empires took a very different direction.
 - A. Both India and China continued to rely primarily on cavalry, when improved guns should have meant a shift to infantry.
 1. The Mughals initially used artillery to great effect and could manufacture their own, but they failed to take advantage of European technological and tactical advances.
 2. The Mughal kings relied increasingly on provincial forces and never attempted to build a Western-style fleet.
 3. In China, although the Ch'ing army had some 800,000 soldiers, most were not very effective garrison troops.
 4. Chinese soldiers increasingly turned to business or farming to supplement incomes and military exercises ceased.
 5. The Ch'ing dynasty also failed to maintain its navy. By the 18th century, the Chinese navy was only made up of small coastal units.
 6. There was no central naval command, in contrast to the sophisticated army bureaucracy. When necessary, they relied on contracted pirate fleets for naval power.

- B. The 17th-century army of the Ottoman Turks was initially very innovative and open to borrowing European methods.
 - 1. The Janissaries introduced many new elements, such as numbered regiments, uniforms, and military bands.
 - 2. The Ottoman government initially resisted arming peasants but eventually began a recruited peasant infantry.
 - 3. There was a concerted effort to import European methods.
 - 4. The Ottomans built gunpowder factories in frontline regions.
 - C. In the 17th century, the Janissary system began to decay.
 - 1. In 1648, the Janissaries ceased to be recruited through the *devsirme* system, and their quality rapidly eroded.
 - 2. Janissaries stationed around Constantinople acted like a Praetorian Guard, making and unmaking sultans. Those stationed in the provinces turned into local militias and even gangs.
 - 3. Increasingly, the sultans lost control over the military in the provinces. The North African states, Egypt, Iraq, and Palestine gained virtual independence.
 - 4. Most of these states proclaimed allegiance to the Ottomans, but there was little real control.
 - 5. The Ottomans had built a powerful navy, but by the 17th century the Ottomans had ceased their activities outside of the Mediterranean and Black seas.
- III. In West Africa during the 16th century, Moroccans armed with matchlocks marched across the Sahara and brought an end to Songhai, the last major Sudanic Kingdom along the Niger River.
- A. Smaller, but powerful, kingdoms developed to the south of the Niger.
 - B. While the introduction of guns had a positive effect in western, central, and eastern Africa, despite the slave trade, to the south the situation was different.
 - 1. In the late 15th century, the king of Congo converted to Catholicism and became a Portuguese ally and a major supplier of slaves.
 - 2. Congo soon came into conflict with the Portuguese. Its armies, using muskets, maintained Congo's independence well into the 19th century.
 - 3. The Portuguese pushed inland, especially south of Congo into Angola. By the 17th century, they controlled a considerable portion of the interior.
 - 4. Similarly, they moved inland in southeast Africa, establishing the colony of Mozambique.
 - 5. Both Angola and Mozambique provided slaves for Brazil. In both regions, the smaller population base was decimated by the slave trade.
 - 6. Ethiopia went through a period of modernization in the 17th century.
 - 7. Due to dynastic struggles, the Ethiopian Empire underwent a period of dissolution in the 18th century. It would not be reunited until the 19th century.

Suggested Reading:

Dzengseo, *The Diary of a Manchu Soldier*.

Morillo, "Guns and Government."

Peers, *Between Mars and Mammon*.

Perrin, *Giving Up the Gun*.

Smaldon, *Warfare in the Sokoto Caliphate*.

Questions to Consider:

- 1. What factors led to the gradual decline of Asian military power?
- 2. What effect did the rise of European power have on the African continent?

Lecture Thirty-Five

The Industrialization of War

Scope: The Industrial Revolution fundamentally shifted military and political power in favor of the European and American powers that adopted it. Elements such as steam power and the rise of the factory system were important, but patent protection was a key element in weapons innovation. The period of 1800 to 1860 saw the rise of the arms industry and enormous technological advances in firearms, cannons, and explosives. The introduction of steam and cast iron in shipbuilding, as well as more powerful guns, led to a naval revolution. There was also an information revolution brought about by the telegraph and the steam printing press, but tactical intelligence did not change dramatically, due to military conservatism.

Outline

- I. The Industrial Revolution shifted the global balance of power in favor of the Europeans.
 - A. By 1800, the Industrial Revolution was well established in Europe and the United States. By this time, steam- and water-driven factories were common.
 - 1. In this lecture we will concentrate on the technological changes that the Industrial Revolution brought to weapons.
 - 2. An important and often overlooked element that helped lead to this growth in weapons technology was the role of the patent system in European law.
 - 3. Patents provided an important financial incentive for the creation of new weapons, for which there was a ready market.
 - B. The 60-year period from 1800 to 1860 saw enormous innovation in weaponry.
 - 1. The discovery of fulminates in 1800 made possible the percussion cap. By the 1830s, percussion caps had replaced flintlocks in military weapons.
 - 2. The Minié ball, invented in the 1840s, allowed for easy loading of a rifled barrel. Rifled muskets were far more accurate at longer ranges.
 - 3. The first practical breech-loader, Johann von Dreyse's needle-gun, was introduced to the Prussian army starting in 1848.
 - 4. All countries soon adopted bolt-action rifles, with brass cartridges.
 - 5. In 1885, Ferdinand Mannlicher introduced the first semiautomatic weapon, with the recoil of the weapon reloading the next shell.
 - 6. A Springfield musket made in 1803 could fire 2 or 3 rounds a minute, with an effective range of 100 yards. The 1903 Springfield bolt-action rifle could fire 10 to 15 rounds a minute at an effective range of 600 yards.
 - C. Even more lethal were the guns developed by the end of the century.
 - 1. The first machine guns were operated with a crank.
 - 2. In 1885, Hiram Maxim introduced the first modern machine gun, which could fire 450 rounds a minute with an effective range of over 2,100 yards.
 - 3. The improvement of artillery was even more dramatic.
 - 4. The development of high explosives meant that the tightly packed formations of the 19th century were increasingly untenable.
- II. Naval warfare went through an even more revolutionary change.
 - A. Steam, which had been used for decades in factories, was harnessed to propel ships.
 - 1. Early steamships were not very suitable for military use. The side-wheeled paddles and engines on deck were vulnerable to enemy fire.
 - 2. Steamships were eventually made more reliable and built without sails.
 - 3. Improved methods made ironclad ships practical. The first screw-propelled ironclad steamship was built in 1859.
 - 4. Only industrialized nations could build steam-powered ironclads, but other nations bought them.
 - 5. The late 19th century saw the development of the modern submarine, using the internal combustion engine.
 - B. The Industrial Revolution not only made weapons more lethal but also improved the ability to arm and support larger armies.
 - 1. The first steam-powered train was built in 1804, but railroads were not used to move troops until sufficient rail networks were built.
 - 2. Railroads were expensive, but by the late 19th century railroad nets were completed, and in some countries came to be controlled by military.

- C. Large corporate arms industries were beginning to emerge, part of a general industrial development.
 - 1. The private arms industries were innovators in industrial practice: The first assembly line in history was used to make guns.
 - 2. In 1855 Henry Bessemer patented a process for making steel from molten pig iron, and machine working improved. Better guns were developed, and the mass production of weapons began.
 - 3. There were still independent inventors who started important arms industries.

III. There was not a strict line between the military and civilian inventor in the 19th century.

- A. In some cases, established businesses moved into the arms market.
- B. During the 19th century, arms dealers became important agents between weapons manufacturers and governments.
- C. Due to the transformation of communication, one might actually call the Industrial Revolution the first information revolution.
 - 1. The impact of steam printing was revolutionary. Post roads, postmasters, and the rise of newspapers were a way to spread military information.
 - 2. Most tactical signaling, however, still used methods that were thousands of years old: drums and bugles.
 - 3. The invention of the telegraph revolutionized military command. By 1854, Napoleon III could direct his soldiers in the Crimea from Paris.
 - 4. The telegraph also made battlefield journalism possible, as did the invention of first photography and then film. Some of the first newsreels are of the Spanish-American War of 1898.
- D. During the 19th century, there was also progress in the military use of information.
 - 1. The techniques of cartography did not change, but improvements in printing and transportation meant more of the world was carefully mapped.
 - 2. There was more organized planning, through the development of general staffs.
 - 3. Tactical information was still gathered by cavalry; the balloon, first used by the French Army in 1894, was not utilized widely despite its obvious utility.
 - 4. One might ascribe the lack of interest in the balloon, like the failure to adopt new technologies, to military conservatism.
 - 5. The biggest opposition came from the cavalry, whose major role, with the increasing power of the infantry and artillery, was reconnaissance.
 - 6. There was also what I would call the coolness factor. Cavalry was simply cooler than balloons.
 - 7. Espionage and intelligence gathering in the 19th century were fairly primitive. Allan Pinkerton introduced undercover agents during the Civil War, but intelligence analysis was still done by individuals.

Suggested Reading:

Brauer and van Tuyl, "The Case of the American Civil War," in *Castles, Battles and Bombs*.

Headrick, *The Tools of Empire*.

Sandler, *The Emergence of the Modern Capital Ship*.

Showalter, *Railroads and Rifles*.

Questions to Consider:

- 1. What were the most important effects of the Industrial Revolution on warfare?
- 2. What were the most important effects of warfare on the Industrial Revolution?

Lecture Thirty-Six

The Nationalization of War

Scope: Nationalism was the most important political and military ideology of the 19th century. The romantic form of nationalism was especially bellicose. Nationalism spread and affected revolutionary movements around the world. Many military officers were leaders in nationalist movements. The excesses of capitalism led to revolutionary movements. Armies were increasingly used as police and for riot control. Religion also changed. Muscular Christianity arose, a militant form of Protestantism. Several militarized Christian offshoots led armed struggles. Islam was also militarized. Conversely, religious pacifist movements started, both in traditional faiths and new religions.

Outline

- I. In the 19th century, nationalism served as a binding force in virtually every Western society.
 - A. Nationalism derived from revolutions opposing the absolute power of monarchs and the ideology of the divine right of kings.
 - 1. These ideas developed in England and led to the revolutions of the 18th century.
 - 2. The American Revolution did not arise from nationalism, but rather out of the ideas of representative democracy and English constitutional theory.
 - 3. The French Revolution also did not begin as a nationalist revolution. Its political theory was largely borrowed from England and America.
 - B. Both American and French nationalism developed under the stress of war.
 - 1. In both revolutions, the initial armies relied on volunteers. Conscription was seen as a sign of tyranny.
 - 2. The French Republic initially abolished conscription, but after being invaded, it instituted a universal draft.
 - 3. The United States passed the Militia Acts in 1792, which subjected every able-bodied white male to military service.
 - 4. Conscription had always been seen as a kind of tax owed to the state. In the ideology of nationalism, military service, even if involuntary, was an expression of patriotism.
 - C. The romantic movement, reacting against the rationality of the Enlightenment, gave nationalism great popular appeal.
 - D. The Haitian revolution broke out in 1791.
 - 1. Usually characterized as a slave revolt, it was inspired by the ideals of the American and French revolutions.
 - 2. Haiti briefly came under the rule of an emperor, who began the creation of a nation-state. But after his assassination, Haiti broke up into several rival states.
 - 3. One of them, the southern Republic of Haiti, was the most successful in creating national institutions.
 - 4. Haiti was dominated by a military elite that who fostered a strong sense of nationalism.
- II. During the 19th century, there was an increasing tempo of nationalist revolutions in Europe.
 - A. Paradoxically, nationalism was quite an international movement, and nationalist uprisings often occurred simultaneous in several places.
 - B. Nationalism and nationalist revolutions spread outside Europe and the Americas and had already made inroads around the world in the 19th century.
 - C. The nation-state arose in close connection to capitalism.
 - 1. Capitalism was successful in creating wealth, but at great social cost. Poor conditions for workers and the heavy-handed use of force led to the rise of socialist and communist movements.
 - 2. Marx and Engels were keen students of war, but both were philosophers. Early socialist and communist movements were led primarily by intellectuals.
 - 3. Unlike nationalism, neither socialism nor communism began in the context of war. They viewed war almost entirely as a negative result of capitalism.
 - 4. While violence was justified to overthrow the capitalist system, the early socialists and communists did not imagine this happening as a war, but as an urban uprising.
 - 5. Their reliance on loosely organized armed mobs, rather than military-style units, was a factor in the failure of their early revolutions.

- D. Another revolutionary movement of the time was that of the anarchists.
 - 1. Mikhail Bakunin's theories on revolutionary violence inspired the violent anarchists of the 19th century.
 - 2. Along with the anarchists, nationalists such as the Fenians and Molly Maguire developed the ideas of terrorist warfare.
 - 3. They were often called dynamiters, from their use of TNT. Fenians unsuccessfully tried to blow up London Bridge in 1884.
 - 4. By the late 19th century, other nationalist groups were using terrorism, and this tendency would grow enormously in the 20th century.

III. Armies were increasingly used to maintain order in cities.

- A. Armed force was used against both riots and peaceful demonstrations.
- B. Religion had an important impact on warfare during the 19th century, and warfare had an important impact on religion as well.
- C. One of the most interesting features of the 19th century was the growth of so-called new religions.
- D. In addition to a militaristic element in religion, the 19th century also saw the growth of religious pacifism.
 - 1. The abolitionist and suffrage movements developed from the pacifism of the Quakers.
 - 2. There was also a pacifist offshoot of Islam, the Baha'i movement, which arose in 19th-century Persia.
 - 3. Freethinkers—theists and atheists—also were attracted to pacifism.
 - 4. New religions, such as Theosophy, were important in the pacifist movement. Mahatma Gandhi drew his ideas of nonviolence from Theosophists in London.

Suggested Reading:

Bigler, *Forgotten Kingdom*.

Dawley, *Changing the World*.

Reed, *The Caste War of the Yucatan*.

Questions to Consider:

- 1. How were the various ideologies of the 19th century affected by the military of the period?
- 2. Why did religion play such an important part in warfare during the 19th century?

Lecture Thirty-Seven

Race and Class at War

Scope: Nobles historically viewed commoners as incapable of effective fighting, though in practice commoners gained noble status in war. Modern armies legally opened rank to commoners, but nobles continued to dominate the officer corps. Modern racial theory only fully developed in the 19th century. The notion of “martial” and “nonmartial” races was a major part of pseudoscientific racism. The concept of race was legalized through restrictions on military participation, and racially based units were common. Marginalized groups, such as Jews, began to participate in warfare, as did, to a much smaller extent, women. Racism never completely replaced the idea of rank, in either aristocracy or the military.

Outline

- I. During the 19th century, the idea of racism emerged as the major anthropological and social theory in the West.
 - A. Divisions between so-called races started to replace the older division between nobles and commoners.
 1. One feature of the nation-state was the incorporation of part of the nobility into the officer corps.
 2. Thus many of the elements of aristocratic ideology survived within military culture.
 3. Noble status was in theory hereditary, but in practice nobility was especially open during wartime.
 - B. The military aristocracy began to decay in the 19th century. Starting with the revolutionary period, a military meritocracy was gradually introduced.
 1. Navies were much more likely to have commoners in command, and this trend increased with the introduction of steam and iron.
 2. In republican countries, such as the United States, nonaristocrats commonly served as officers.
 3. One of the motivations behind the rise of communism and anarchism, as well as racism, was the frustration of the commoners at continued noble privilege.
 4. The tension between aristocrats and commoners was also present in non-Western countries. The career of Tseng Kuo-fan, one of China’s best generals in the 19th century, suffered as he was a Han Chinese, not a Manchu aristocrat.
 - C. The traditional military distinctions of aristocracy were increasingly challenged by a new theory: racism.
 1. One of the main points of racial theory was the fundamental equality of aristocrats and commoners of the same race.
 2. Although bigotry and racism had certainly existed for centuries and were an integral part of the European slave system, modern racism only fully developed in the 19th century.
 3. The new biological ideas of Charles Darwin and Alexander von Humboldt were misinterpreted to provide support for racist ideas.
 - D. Arthur de Gobineau’s *An Essay on the Inequality of the Human Races* was the first major modern racist work.
- II. The clearest racial division that developed was of those identified as black.
 - A. The idea of Africans and their descendents in the Americas as being fundamental cowardly and therefore unfit to be soldiers is a common theme in racist literature.
 1. In fact, the Europeans who actually interacted with African armies wrote of not only their courage but of their discipline and skill.
 2. In the Americas, blacks served as soldiers beginning in the 16th century and fought in both colonial forces and revolutionary forces.
 - B. In the European tradition, blacks, and indeed any nonwhites, were banned from serving as officers to prevent the upward mobility in status that this conferred.
 1. Both conventional and legal segregation was the norm in 19th-century America, as it was around the world, though the races and ethnicities involved differed.
 2. Segregated U.S. Regular Army units were raised after the Civil War, the so-called Buffalo Soldiers, but other ethnic groups were never legally segregated.
- III. Over the course of the 19th century, discrimination against Jews changed from a legal one, based on medieval church doctrine, to a racial one.
 - A. Virtually no Jews had been allowed to join Western military forces in the 18th century, the one significant exception being the American Revolution.
 - B. After the French Revolution, the Jews of Europe began to take part in military service.

- C. The trend toward Jewish equality slowed after the Congress of Vienna, but by the latter half of the century, Jews were serving in almost every European military.

IV. The 19th century saw a change in gender roles as well.

- A. “Civilized war” was defined in treatment of women and in the honor and defense of womanhood, especially white womanhood.
 - 1. While women were seen as passive victims of war, they often participated in battle, especially in sieges. The courage of such women was viewed ambiguously.
 - 2. The phenomenon of women dressing as men to fight goes back to antiquity but became more common in modern times.
 - 3. Linda Grant De Pauw estimates that at least 1,000 women fought dressed as men during the American Civil War.
- B. During the Civil War, a new feature developed: the woman as nurse or (in rare cases) as doctor.
- C. The new 19th century notions of racism and patriarchy, however, did not completely replace the older ideas of aristocracy.
 - 1. We normally think of aristocratic reactionaries in the same category as the racists of the period, and indeed the nobles were often deeply prejudiced.
 - 2. Nobility and royalty, however, continued to be recognized across cultures in the 19th century and did not take cognizance of race.
 - 3. Ideas of race and aristocracy coexisted in the military, as elsewhere in the 19th century, which should not surprise us.

Suggested Reading:

De Pauw, *Battle Cries and Lullabies*.

Enloe, *Ethnic Soldiers*.

Ramold, *Slaves, Sailors, Citizens*.

Questions to Consider:

- 1. How did the changing military culture of the 19th century affect class, race, and gender relations?
- 2. In what ways was participation in war linked to civil rights and social status in the 19th century?

Lecture Thirty-Eight

Imperialism and the Triumph of the West

Scope: Until the early 19th century, Europeans were satisfied with the trading-post model in most regions. Many parts of Africa and Asia remained outside of European control. This changed due to the rise of modern racial theory, as well as raw greed. Imperialism was driven by other factors as well: debt collection, strategic interest, and prestige. The steamship, machine gun, and explosive shell made Western armies unbeatable by those who did not adopt this technology.

Outline

- I. There was flurry of European conquest in the 16th and 17th centuries and then a global war over trade in the 17th and 18th centuries.
 - A. By 1800, the Europeans seemed satisfied to maintain the trading-post model they had developed.
 1. The Russians conquered Central Asia to the Pacific but did not move southward; they crossed over to Alaska to obtain furs.
 2. In 18th-century North America, the British adopted a strategy leaving the Indian confederations in place and limiting European settlement to the coast.
 3. Early American treaties with Indian confederacies treated them as nation-states.
 4. In contrast, Andrew Jackson's "treaty" after his victory over the Creek in 1814 is a series of commands, ordering the cession of millions of acres. The tone of this pseudotreaty is that of a stern parent castigating a child.
 - B. Such treaty language reflects how non-Westerners were increasingly seen as savage rather than merely foreign. A number of factors led to this change.
 1. One was modern racial theory, which saw civilization as the product of race.
 2. Many Americans now saw "inferior races" as only good for labor or, as in the case of the American Indian, doomed to extinction.
 - C. An important factor in the rise of imperialism was greed and self-interest.
 1. After the United States seized Choctaw land, plantation slavery was introduced and hundreds of thousands of African American slaves were marched into Mississippi.
 2. The early state of Mississippi was highly militarized, with much of the white community serving in slave patrols. The profits from the slave plantations were enormous.
 3. The desire for cheap raw materials was an important factor in imperialism. The expansion into Africa and Southeast Asia was driven partly by the need for products like rubber.
 - D. Another version of racial theory, popular among liberal Protestants, saw the white race as a benefactor.
 1. In India, a group of such liberals introduced Western education, railroads, and modern medicine. They also seized the territory of India's traditional aristocracy, leading to the Indian Mutiny of 1857.
 2. After the mutiny, the British changed their policy and supported the native nobles, adopting a paternalistic and racist policy toward Indians.
- II. Western powers were eager to sell weapons and other goods, and also to lend the money for the purchase.
 - A. New governments borrowed beyond their means, and lenders pressured Western governments to use military action to force repayment.
 - B. Westerners were present in virtually every country, and wars were fought to protect such expatriates.
 - C. One of the strongest impulses in imperialism was the expansion of settler states. The effect in the United States is well known, but Argentina followed a similar, and in many respects more brutal, practice.
 - D. Between the 1830s and 1870s, Argentina launched campaigns to conquer the interior. Practically the entire native population was destroyed. Similar wars of extermination occurred in Australia.
 - E. Strategic interest also played a role in imperialism.
 - F. Of course there was fierce resistance to the Europeans.
 - G. The pace of European imperialism increased rapidly at the end of the century.

- III. In 1876, a report by U.S. General Emory Upton discussed the success of some states, like Japan, and the failure of others, like China, in adopting modern militaries.
- A. While much is made of Japanese isolation, it was never complete.
 - 1. The Satsuma clan adopted a Western-style army in the early 19th century. A year before Perry “opened” Japan in 1854, the Shogunate bought a modern steam-powered warship.
 - 2. After the Meiji Restoration in 1867, though, Japan rapidly established a modern army and navy, a military academy, and schools for noncommissioned officers. Conscription was introduced, and schools were founded to educate commoners.
 - B. China is an example of a state that tried, and failed, to institute a modern army.
 - 1. According to General Upton, the Chinese army of 1876 had some 600,000 soldiers, but there were less than 20,000 modern troops.
 - 2. The Ch’ing government attempted to modernize in the so-called Self-Strengthening Movement, which was ultimately a failure.
 - 3. Governors were already quasi-independent warlords due to the weakness of the central government. China was increasingly humiliated in a series of wars, culminating in the Sino-Japanese war of 1894.
 - C. In other regions, such as Egypt and Iraq, the results of attempts to Westernize were mixed.
 - 1. In Egypt, Muhammad Ali began building a Western-style army and navy along modern lines and modernized the Egyptian economy, especially the cotton industry.
 - 2. Although Egypt won its independence from the Ottomans, Ali’s attempt to create a modern state was not successful. This was partly due to European opposition, but also because of Arab revolts opposing conscription and the failure to create a capitalist class.
 - 3. In Iraq, Dawud Pasha brought in French advisors to train an army of 20,000. He had a modern munitions factory built by Europeans, but in 1831 he was defeated by the Ottoman army.
 - 4. Partly due to the crises created by Mohammed Ali and Dawud Pasha, the Ottoman Empire went through a modernizing process. The government introduced economic and educational reforms and a modern-style army.

Suggested Reading:

Headrick, *The Tools of Empire*.

Scheina, *Latin America’s Wars*.

Upton, *Armies of Asia and Europe*.

Zorlu, *Innovation and Empire in Turkey*.

Questions to Consider:

- 1. What were some of the factors that led to Western imperial success in the late 19th century?
- 2. How did the rise of imperialism affect non-Western powers?

Lecture Thirty-Nine

The 19th-Century Culture of War

Scope: There was great social unrest in the 19th century, but the new conscripted armies generally stayed loyal. This was due to several factors, including public education. Cadet corps and the development of military toys helped glamorize service. War and military theory were major themes in writing, and military music became popular. Veteran organizations arose and became a political factor. Modern historians see military culture as indoctrination, but there was a strong popular element to them. Nonaristocratic officers, the rise of war correspondence, military fashion, art, and literature broke down barriers between the military and civilian cultures. The invention of military cemeteries and monuments changed the cultural memory of war.

Outline

- I. One of the most socially jarring elements of 19th-century industrialization was its relentless urbanization.
 - A. Factories drew populations from villages into cities.
 1. An urban class, the Marxist proletariat, developed.
 2. An important function of armies was controlling this urban class. Cannons and artillery were deployed against demonstrations and riots.
 - B. These new mass armies did not, in general, rise up against the governments or capitalists of Europe.
 1. One reason was discipline and training, though it was not as brutal as in the 18th century. A system of fines and brief imprisonment replaced whipping.
 2. Armies stayed loyal mainly due to nationalism and mass education.
 3. Many universities and colleges organized cadet corps, and military science was made an academic discipline.
 - C. The 19th century saw the growth of war toys and games, helping popularize military service.
 - D. In 1870, the British eliminated the purchase of commissions.
- II. War also affected writing.
 - A. Practical literature, such as military handbooks and field manuals, arose in every language.
 - B. War also became a major subject of fiction during the 19th century.
 1. War poems became some of the century's best known: for example, Alfred Tennyson's *Charge of the Light Brigade* (1854).
 2. Perhaps the greatest war novel of all time was Leo Tolstoy's *War and Peace* (1865–1869).
 3. Stephen Crane wrote *The Red Badge of Courage* (1895) based mainly on magazine articles, but it impresses veterans even today with its emotional reality.
 4. The war correspondent is a feature of the 19th century. While on one hand newspapers glorified war, they also gave graphic descriptions and illustrations.
- III. Despite public education, illiteracy remained widespread.
 - A. Patriotic music was used to inspire community and loyalty.
 1. By the 19th century, armies had developed a large repertoire of music.
 2. Veterans and reservists carried this music and their instruments back to towns and villages.
 3. The military-style brass band became very popular. Composers such as John Philip Sousa rose to international fame.
 - B. Flag raisings, parades, and other ceremonies became a routine part of military life.
 1. Napoleon had introduced the use of medals, and the practice quickly spread.
 2. For the first time, military pensions began to be paid to those wounded or incapacitated. Veterans' homes opened to serve homeless and elderly veterans.
 3. Veterans formed organizations such as the Grand Army of the Republic in the United States, which became important political and social organizations.
 4. Women's organizations such as the Daughters of the American Revolution were also influential politically, especially on the right.
 - C. Modern historians tend to be cynical about the process of military socialization, considering these soldiers victims of a form of brainwashing.
 1. There is much evidence, however, that universal service was not resented and was even popular in 19th-century Europe.
 2. The officer corps in Europe had been exclusively aristocratic. Now members of the new property-owning class, the bourgeoisie, served as officers.

3. Military rank became a matter of pride.
- D. An interesting feature of 19th-century culture was the dramatic influence of uniforms on civilian fashion.
 1. The necktie developed from the scarf worn around the neck to prevent chafing, specifically the colorful ones worn by Croatian soldiers.
 2. Zouave dress influenced women's fashion, for example, in the blouse and bolero jacket.
- IV. There was a nationalistic and bellicose element to 19th-century politics.
 - A. Newspapers often took prowar stands because they knew these were popular among their readers.
 - B. Battle was a major theme of the so-called academic art of the 19th century.
 - C. Military cemeteries also developed. This was originally an American innovation.
 1. As my colleague, Libra Hilde, points out, former Confederate nurses began the practice of building elaborate memorials to dead soldiers.
 2. Memorial cemeteries subsequently spread to the North and then around the world.
 3. Military monuments, such as the Arc de Triomphe and Napoleon's Tomb, became part of public architecture.

Suggested Reading:

Farwell, *Mr. Kipling's Army*.

Saideman and Ayres, *For Kin or Country*.

Vagts, *A History of Militarism*.

Van Creveld, *The Culture of War*.

Questions to Consider:

1. What were some of the elements of 19th-century Western culture that promoted war?
2. What were some of the elements of 19th-century Western culture that promoted peace?

Lecture Forty

A Common Way of War—The 20th Century

Scope: Technological change over the course of the 20th century was less dramatic than commonly thought. Functionally, the firearm and artillery pieces changed little from 1900 to 2000. Chemical and biological weapons have had little real effect on warfare. But advances in engine design have changed war dramatically, both in improving transportation and in making airplanes more effective. Ultimately, jet propulsion led to rockets and missiles, but nuclear weapons had only a deterrent effect. The most influential inventions were in communications technology, allowing for the changes in tactical movement that are characteristic of modern warfare.

Outline

- I. While the 20th century is seen as one in which the technology of war changed completely, this was less dramatic than one might think.
 - A. The basic weapon of war remained the infantry soldier's firearm.
 - 1. In contrast with the rapid changes in the 19th century, there was little significant improvement in the rifle.
 - 2. The bolt-action rifle was a basic weapon in both World War I and World War II, improved slightly by the introduction of semiautomatic rifles.
 - 3. In 1944, the Germans introduced the first assault rifle, capable of both semiautomatic and fully automatic firing.
 - 4. Except for the innovation of using plastic, there is little functional difference between the 1903 Springfield and the modern M-16.
 - 5. Although the latter can fire 600 rounds per minute, its magazines carry at most 20 bullets, so the higher rate of fire is only theoretical.
 - B. Artillery had already reached its modern form by 1900, both in light, rapid-firing and heavy, long-range guns.
 - 1. One major improvement in artillery over the course of the 20th century was in fire control. The U.S. Army came up with the first automated fire control systems in the 1930s.
 - 2. The modern mortar became ubiquitous, and hand grenades returned to military use, after having been abandoned in the 19th century.
 - 3. In the latter part of the 20th century, the development of wire- or radio-guided antitank and antiair missiles made the infantry soldier more potent.
 - 4. Helmets and body armor developed over the course of the century, but the latter was only widely used at the century's end, after the development of Kevlar.
 - C. Chemical weapons were a new element of 20th-century war, although they turned out to be more terrifying than useful.
 - 1. In World War I, lethal chlorine and mustard gas were introduced. In World War II, the Germans invented a nerve gas called sarin but did not use it.
 - 2. The Japanese first weaponized biological agents, such as anthrax; they used them principally on the Chinese.
 - 3. In practice, chemical and biological weapons have rarely been used, though a gas mask has been part of the basic gear of virtually every soldier in the world for the past century.
 - 4. The land mine became a common weapon in the 20th century. Unlike other weapons, however, they remain active after the end of the war and kill more civilians than soldiers.
 - D. The invention that changed 20th-century warfare the most is probably the internal combustion engine.
 - 1. This invention revolutionized transportation, introducing diesel trains, the car, and (most important for warfare) the truck.
 - 2. The horse and mule remained important for decades, but the truck freed armies from depots and railheads, making war more fluid and wide-ranging.
 - 3. Armored cars with machine guns appeared as early as 1906, and tanks with treads and cannon in came into use in World War I.
 - 4. Modern tanks were made possible by the development of practical suspension systems.
- II. Naval warfare changed very dramatically in the last decade of the 19th century and first of the 20th. Over the course of the 20th century, however, it changed little in fundamentals.
 - A. In function, ships did not differ greatly from the men-of-war, as they were intended to sink enemy warships with guns and gain command of the sea.
 - B. The internal combustion engine and the fish torpedo provided both an effective means of propulsion and an effective weapon for the submarine.

- C. Propulsion systems for ships steadily improved. Though nuclear power allowed for ships and submarines to sail indefinitely, most ships continued to use oil.

III. The airplane represents an element of warfare that is completely unlike anything in history.

- A. Lighter-than-air dirigibles allowed for guided flight but ultimately proved to be too easy to destroy.
- B. The Wright brothers' breakthrough was three-axis control, which allowed their famous flight in 1903.
- C. The obvious use of airplanes, recognized from the beginning, was to fly over and report on enemy positions.
- D. Bombs were first dropped in war in 1911 in Libya. Mazatlan, Mexico, was the second city bombed from the air.
- E. Air power was unexpectedly important during World War I. The quality of planes improved tremendously, especially in the last two years of the war.

IV. Airplanes became an important and versatile tool of warfare.

- A. There were three basic types: small, fast planes for reconnaissance and shooting down other planes; long-range large planes for bombing; and large, slow planes used as transports.
- B. Larger planes armed with bombs were used with increasing frequency. They have often been utilized to attack populated areas, with high civilian casualties.
- C. The airplane had a dramatic effect on naval warfare. The aircraft carrier made the battleship obsolete.
- D. After World War II, jet planes rapidly replaced propeller planes.
- E. The Germans deployed a few helicopters in World War II. Their military use increased dramatically in the last 50 years of the 20th century.
- F. Since the 1970s, helicopter gunships have been widely used in counterinsurgency, although hand-held guided rockets have made them less effective.

V. In contrast to weapons technology, advances in communications changed the nature of 20th-century war completely.

- A. Wireless radio was a very important invention.
- B. In contrast to the increasing ease of strategic communication, tactical communication on the battlefield became increasingly difficult.
 - 1. One of the major challenges of 20th-century warfare was communication between individuals on the battlefield.
 - 2. The walkie-talkie, introduced in World War II, allowed small units to communicate, but individual communication was still done with hand signals or shouting over the noise of battle.
- C. Rapid-fire weapons and high explosives made the dispersion of forces necessary to prevent large casualties.
 - 1. In the early 20th century, soldiers were not considered capable of independent action, so bunching together was necessary for control.
 - 2. In World War I, the Germans introduced the use of fire and maneuver teams, usually of five or six men
 - 3. Giving initiative to enlisted soldiers greatly improved combat effectiveness and lowered casualties.
 - 4. In naval warfare, ships were dispersed until they were often out of sight of each other. Ironically, it was the airplane that retained the old idea of formation in combat.

Suggested Reading:

Black, *The Age of Total War*.

Budiansky, *Air Power*.

Citino, *From Blitzkrieg to Desert Storm*.

Habeck, *Storm of Steel*.

Questions to Consider:

- 1. What were the most important developments that shaped 20th-century warfare?
- 2. What explains the complete globalization of war in the 20th century?

Lecture Forty-One

War and 20th-Century Ideology

Scope: Multiethnic empires collapsed into nationalist entities, often violently. World Wars I and II led to the creation of dozens of nations. Fascism and national socialism were highly militaristic and aggressive, and devoted to racial warfare. Communism saw both international and internal struggle in terms of class conflict, but national interest remained strong, if hidden. Liberal democracy was less influenced by militarism. While both fascists and communists thought liberal democracy weak, the democratic states were in fact highly effective in wartime. Religious ideology reemerged at the end of the century. Despite the importance of ideology, nationalism was a key factor in 20th-century war.

Outline

- I. At the beginning of the 20th century, both Europe and Asia still had large, multiethnic empires.
 - A. These empires tried to develop ideologies that would keep the loyalty of their populations and their armies, but they ultimately failed.
 - 1. In China, the Ch'ing dynasty attempted to use Chinese pride and antforeign sentiment but at the same time maintain Manchurian domination.
 - 2. Chinese defeats at the hands of the Japanese and Western powers made this untenable. The Ch'ing soon lost control of regional armies led by Han Chinese.
 - 3. The Ottoman Empire experimented with a modern pan-Islamism, but this became increasingly difficult in the face of the rising nationalism of Arabs, Turks, Armenians, and Kurds.
 - 4. In Europe, the Austrians privileged the Hungarians, but the regiments from Slavic-speaking regions were unreliable and served as the breeding ground for Slavic nationalism.
 - B. The weakness of the multiethnic model is made clear by its rapid collapse. The Chinese empire ended in 1911, and the others fell during World War I.
- II. Socialism in the 19th century divided into a class version (communism) and a race version (fascism).
 - A. The fascists originally opposed the traditional military class, seeing it as a tool of the corrupt capitalist and liberal states.
 - 1. Nonetheless, the fascists were very militaristic. They saw warfare as not only necessary, but good.
 - 2. Despite fascism's ambiguous attitude toward professional militaries, some of the best military thinkers were fascists.
 - B. The aggressiveness of fascist states had more to do with ideology than with the need, or even the desire, for profit.
 - 1. During World War II, the fascist powers made a series of mistakes that threw away much of their initial advantage.
 - 2. The Nazis benefited from anticommunism and the Japanese from anticolonialism, but both squandered this advantage through brutal methods and placing ideology over practicality.
 - 3. Fascism survived World War II in both Latin America and the Middle East.
 - C. The second great totalitarian movement of the 20th century was communism.
 - 1. Communism believed that class conflict was inevitably violent.
 - 2. The communists took over Russia and changed from a strategy based on urban workers using strikes to one based on military action.
 - D. The military was always under the control of the Communist Party, and society was highly militarized.
- III. The idea of a liberal democratic ideology, as opposed to a totalitarian one, began to emerge.
 - A. Professional officer corps in the liberal democracies tended to be quite conservative, in some cases even fascist.
 - 1. In Britain and the United States, the ideological split between a conservative military and a liberal government was never strong enough to threaten democratic institutions.
 - 2. The case was different in France, where the military-civilian split was one reason for the country's rapid collapse in 1940.
 - 3. While the methods of the democracies did not always guarantee intelligent decision making, in the long run the systems of the democracies function better in war than the ideological systems.
 - B. Western powers also made great use of colonial troops and of racial minorities.

- C. The Cold War was driven by an ideological split between communism and the liberal democratic ideology.
 - 1. The Cold War broke out several times into “hot wars,” such as in Korea, Vietnam, and Afghanistan.
 - 2. Ultimately, nationalism was a potent factor, as evidenced in the Sino-Soviet split and the Chinese-Vietnamese war.
 - 3. After the fall of the Soviet Union, conflicts driven by communist ideology waned.
- D. In the Middle East, Jewish nationalists (Zionists) succeeded in creating and defending Israel.
 - 1. Most of the Arab resistance to Zionism was not religious but driven by pan-Arab nationalists or communists.
 - 2. There has been a resurgence of militant Protestant Christianity in a few places.
 - 3. Recently, certain elements of Islam have become very militant on a global scale.
 - 4. Despite the strength of ideological movements, nationalism remained a key factor in warfare throughout the 20th century.

Suggested Reading:

Howard, *War and the Liberal Conscience*.

Mawdsley, *The Russian Civil War*.

Overy, *Why the Allies Won*.

Sajer, *The Forgotten Soldier*.

Questions to Consider:

- 1. What were the strengths and weaknesses of the ideological movements of the 20th century?
- 2. In what ways were nationalistic conflicts presented, or thought of, as ideological ones?

Lecture Forty-Two

War and the Persistence of Nationalism

Scope: During and after World War II, both fascists and communists increasingly turned to national interest for gaining both internal and external support. Postwar communist states often acted in national, not ideological, interest. Even ideological warfare often resulted in changes in national boundaries and massive forced migration of ethnic groups. Military dictatorships were common. In new states, the military played a key role in nation-building; the organization for the world wars was a major factor in the development of modern national institutions in liberal democracies as well.

Outline

- I. In this lecture we focus on three points. First, although its wars were often ideological, the 20th century began, and ended, with nationalism firmly in place.
 - A. After World War II, the world developed into communist- and non-communist zones.
 1. Under Stalin, the Soviet Union tightly controlled communist zones. After his death, control was loosened, but attempts to remove communist governments were met with military force.
 2. In the non-communist zone, or Free World, the United States intervened militarily to prevent communists from taking power but did not normally interfere with internal affairs beyond this.
 3. This ideological struggle resulted in a number of so-called proxy wars, the best known being in Korea and Vietnam.
 - B. The 20th-century ideologies were often forced to appeal to basic ideas of traditional nationalism.
 - C. After World War II, communist states, although committed to internationalism, increasingly acted in their national interests.
 1. For example, Russia and China fought a war in 1969 over long-standing border issues.
 2. What is very striking about communist China is how nationalistic it actually was during the 20th century.
- II. Second, although many of the century's wars were fought for ideological reasons, their most dramatic political effects were national.
 - A. The political map of every continent was transformed through the 20th century's wars.
 1. National boundaries do not seem to have been affected in the same way in different regions.
 2. One might ascribe the changes in European borders to the century's ideological wars, but a closer look indicates struggles that often harken back to the 18th-century idea of nationhood.
 3. In nationalism, a boundary is not simply a line on a map. The nation as a state grows out of the nation as a people.
 - B. In contrast to the instable borders of Europe, the colonial boundaries drawn for Africa remained remarkably stable.
- III. Third, war and the military have shaped the nation-state's organization.
 - A. Although civil servants initially held power in many new nations, they were often replaced by military dictatorships.
 - B. A term for military-political ideology arises in the 20th century: militarism.
 - C. Throughout the 20th century, the military played an important political role worldwide.
 - D. The modern state was invented in large part due to the needs of warfare. In the 20th century, these elements were globalized.

Suggested Reading:

Porter, *War and the Rise of the State*.

Westad, *The Global Cold War*.

Zarrow, *China in War and Revolution*.

Questions to Consider:

1. How did 20th-century war affect the political map of the world?
2. What were the roles of the military and war in the development of government in the 20th century?

Lecture Forty-Three

Economies and Economics at War

Scope: Warfare and the military had an important impact on 20th-century economics. While economists before World War I predicted that modern war had become too expensive for states to afford, national economies adjusted remarkably well to the needs of war. Eventually, though, economic strains played an important role in ending the fighting. As the century went on, economies grew so large that war made up less and less of the gross domestic product. The market economies of the liberal democracy proved more able to deal with the needs of war than command economies. Warfare played a role both in modernizing economies and in driving technological innovation. While capitalists are often blamed for inciting wars in order to profit, this is very rarely the case.

Outline

- I. Every advance in military technology has brought with it increasing costs.
 - A. At the beginning of the 20th century, it appeared the costs of war would overwhelm economies.
 - B. The new discipline of economics turned its attention to this problem.
 - 1. Early 20th-century economists calculated that war was too expensive to fight and thus would become obsolete.
 - 2. Military planners before World War I assumed a war of more than a few months was literally impossible.
 - 3. The German Schlieffen Plan was based on the idea of winning very quickly before lack of funds forced a stop to fighting.
 - C. In practice, European economies sustained the costs of modern war much longer than economists had predicted.
 - 1. Rationing was introduced, and industrial production turned to the war effort.
 - 2. The success of war bonds in raising money astounded economists.
 - 3. Ultimately, however, the strain of World War I on economies was too much. Russia, for example, collapsed into revolution in 1917.
 - 4. Germany faced economic collapse and was forced to end the war in 1918.
 - 5. Only the massive influx of American capital had saved the British and French, but their losses led to an insistence on an enormous war indemnity from Germany, a factor in the outbreak of World War II.
- II. The percentage of the U.S. gross domestic product spent on the military during World War II peaked at 35 percent. At the height of the Vietnam War, it was only 7 percent.
 - A. As fast as military spending increased in absolute terms, modern economies grew so much faster that the military proportion decreased.
 - 1. The nation-state was especially effective at maintaining war when combined with capitalism.
 - 2. Both fascism and communism shared a common hostility to capitalism, and both were committed to the idea of a command economy.
 - B. Totalitarian states, while often seen as finely tuned military machines, were actually less efficient in managing their economies than capitalist states.
 - 1. This was not in spite of, but because of, their totalitarian nature.
 - 2. Ideology played an important role in fascist economic decisions, and economic posts were assigned on the basis of political loyalty, not ability.
 - 3. In the United States, the use of women in factories and awarding equal pay to blacks were factors in its military success.
 - 4. The United States produced almost 300,000 planes, more than 100,000 tanks, 2.5 million trucks, 87,000 warships, 20,000,000 small arms, and 44 billion rounds of ammunition.
 - 5. This level of production eclipsed that of the Germans and Japanese.
 - C. Germans were innovative during World War II, but the Nazi economy did not effectively exploit the brilliance of its planners and engineers.
 - 1. Germans developed ballistic missiles, practical jet fighters, delta-winged aircraft, the first infrared sight, the first wire-guided missile, and the first plastic parts in a weapon.
 - 2. German weapons development was hampered, however, by poor central planning and organization.
 - 3. The market-oriented approach and more effective organization meant the Allies developed and deployed new technology more quickly.

III. The military costs of the Cold War were immense.

- A. These involved the expense of proxy wars and also of standing armies and intelligence services.
 - 1. In addition, there was the ever-increasing cost of weapons systems and weapons development.
 - 2. From the beginning of the Cold War, the West was aware that its economy was more able to support this economic strain.
 - 3. National Security Council Report 68 (1950), a remarkable study, stated this clearly.
 - 4. This economic strain was certainly a factor in the Soviet Union's collapse.
- B. War was a major factor in 20th-century economies.
 - 1. After World War I, the United States replaced Britain as the world's major economic power.
 - 2. The military preparation for World War II played a role in eliminating unemployment and boosting production worldwide.
 - 3. Warfare had an important effect on class, especially in the United States. The GI Bill helped reduce the poverty rate from about 30 percent to about 15 percent.
 - 4. Globally, war has had the effect of moving millions of people out of agricultural work and into factories. The military has provided a means of social advancement worldwide.
- C. One of the most important interactions between war and economy has been in the use of military technology in the private sector.
 - 1. The turbine steam engine revolutionized transportation and made both passenger and freight travel much faster by sea.
 - 2. The dirigible provided the first transatlantic air passenger service, and bombers provided the model for passenger airplanes.
 - 3. The ballistic missile made possible effective communications satellites.
 - 4. The use of nuclear power was a result of Cold War defense research. In France, it provides about 80 percent of the country's electricity.
 - 5. The invention of plasma has saved thousands of lives. Methods such as triage were adapted into civilian emergency rooms.
- D. Radar is an interesting example of how military and civilian technology can have complex mutual effects.
 - 1. Early radar required high towers, which were easy targets. The solution was microwaves, which made smaller installations possible.
 - 2. The Japanese experimented with creating a microwave weapon. This was not practical, but microwaves were perfectly suited for cooking.
 - 3. Some individuals innovate in both the military and civilian realms. Fritz Haber, the "Father of Chemical Warfare," also invented artificial nitrogen fertilizers, which saved millions of lives.
 - 4. Robert McNamara, who developed the theoretical basis of firebombing, was also instrumental in introducing the seatbelt.
 - 5. Tremendous military investment in research helped expand the university system worldwide, but especially in the United States.

IV. It is worth mentioning the role, or purported role, of economics in the outbreak of wars.

- A. In a few cases, individual capitalists have encouraged, even maneuvered, governments into wars.
- B. Capitalists are blamed for many of the wars in the 20th century.
 - 1. Historians, however, have shown there is no evidence to support such theories.
 - 2. In fact, businessmen generally oppose war as inimical to trade.
 - 3. Whether or not capitalists cause wars can be less important than whether people believe it to be the case.

Suggested Reading:

Brauer and van Tuyl, *Castles, Battles and Bombs*.

Ferguson, *The Cash Nexus*.

Li, *Chinese Civil-Military Relations*.

Questions to Consider:

- 1. How did 20th-century war affect the global economy?
- 2. What was the impact of military invention on the lives of people in the 20th century?

Lecture Forty-Four

Culture and War in the 20th Century

Scope: Culture has had a great impact on war, and war on culture. The rise and fall of the military parade illustrates the move from a militaristic and group-oriented activity to more individualistic and demilitarized ones. War had a great impact on 20th-century art. Movies and paintings served as powerful propaganda both for and against war. The sculpture of war was dominated by memorials. Writing on war expanded exponentially, in quantity if not quality. Great war novels were written; the concept of the war poet developed out of World War I.

Outline

- I. To be sure, ideas about war derive from culture.
 - A. In 20th-century popular culture, Jews were often seen as manipulating behind the scenes to bring about war.
 - 1. This motif reached its climax in the Nazi regime of Germany, which built this mythology into the very basis of its state.
 - 2. The anti-Semitic obsession of Adolph Hitler and the Nazis had an impact on how Germany fought, and lost, World War II.
 - 3. I use anti-Semitism as an example of culture and war because it is so vulgar and obvious. The interaction between culture and war was generally subtler.
 - B. There are two remarkable features of 20th-century culture and war if viewed from a world historical perspective.
 - 1. After the horrors of World War I, there was a reaction against the glorification of war; antiwar art, books, and films became popular.
 - 2. There was a reversal in the trend for upper classes to be more militaristic than lower classes; high culture became almost universally nonmilitaristic.
 - C. During the early 20th century, military parades were major features of popular culture.
 - 1. As they were impressive and easy to film, parades of marching soldiers translated well into early motion pictures.
 - 2. As the motion picture became more sophisticated, however, military films tended to focus more on the individual.
 - 3. The shift from the image of a disciplined mass to the individual was a major feature of 20th-century culture at all levels and in all media.
 - D. New media technology interacted with war in various ways.
 - 1. Portable movie cameras added an entirely new dimension to war journalism.
 - 2. Though the filming of combat was possible, reenactment was very common, and not always recognized.
 - 3. The motion picture became an enormously popular medium worldwide.
 - 4. In the second half of the century, antiwar movies become an increasingly important genre.
 - E. The radio was also enormously influential.
 - 1. Newscasts about war and from the battlefield brought warfare into people's living rooms.
 - 2. One of the major innovations of the Nazi regime was the inexpensive people's radio sets designed to receive only government transmissions.
 - 3. On a less sinister note, radio also helped create popular music in virtually every culture.
 - F. The first television broadcasts appeared in the late 1920s, and the 1936 Olympics in Berlin were the first to be televised.
 - G. In popular music, there were both antiwar and patriotic songs.
- II. The 20th century saw an enormous change in the memorialization of war.
 - A. Soldiers were seldom the subject of fine art sculpture, which became increasingly abstract.
 - B. In high culture, the trend toward demilitarization began at the very start of the century and is a feature of modern art.
 - C. Representational art and illustration was increasingly seen as, and indeed was, propaganda.
 - D. With some exceptions, high culture writing either ignored war or was antiwar throughout the century.
 - E. After World War I, there was an absolute explosion of military historical writing.
 - 1. Governments sponsored official histories, and specialized writing appeared about every aspect of campaigns.
 - 2. Military history written for the general public gradually became less of a popular genre and more of a specialized nonfiction genre after the 1960s.

Suggested Reading:

Kuklick, *Blind Oracles*.

Seaton, *Japan's Contested War Memories*.

Voldeman and Capdevila, *War Dead*.

Winter, *Remembering War*.

Questions to Consider:

1. How did the 20th-century image of war change in traditional art media such as painting and writing?
2. How do new media, such as radio, movies, and television, affect the perception of war?

Lecture Forty-Five

The Weaponization of Information

Scope: The 20th century saw the weaponization of information in censorship, propaganda, and espionage. Censorship developed in World War I. War propaganda also became routine, and the British proved very adept at it—a factor in the United States' entry into the war. Totalitarian fascist and communist states maintained elaborate propaganda machines during peacetime. The major victims of propaganda were often political and military leaders who believed their own fantastic views of reality. Another aspect of information warfare is espionage, which became very sophisticated in the 20th century. While both human and signals intelligence have had some important tactical successes, the role of espionage in military success is greatly exaggerated. The perception of spying is often more influential than its reality.

Outline

- I. The weaponization of information during the 20th century occurred in three aspects: censorship, propaganda, and espionage.
 - A. Before World War I, soldiers' letters and war correspondents' reports generally went uncensored.
 1. During World War I, however, every combatant nation developed a sophisticated system of censorship.
 2. All combatant nations developed large bureaucracies to censor letters and other communications as well as control the reporting of news from the war zone.
 - B. Censorship was not equal from society to society.
 1. Totalitarian governments exercised more control than democratic ones, and they did so in peacetime as well as in war.
 2. In democratic countries, censorship did not develop in a regular progression: American censorship was much tighter in World War I than in World War II.
 3. The growth of the idea of journalism as a profession began a long struggle against wartime and military censorship.
- II. The control of information was not only in restraining it but also in propagating the state's view.
 - A. All the combatants in World War I organized propaganda offices to keep up morale among both the civilian population and the troops.
 1. Great Britain proved very adept in the use of propaganda. This may be because they had a volunteer army, and it was necessary to convince young men to enlist.
 2. The British organized a sophisticated propaganda campaign to convince Americans to support the Allies. Most historians believe the United States would have entered the war even without such propaganda, but it certainly was a factor.
 - B. In the liberal democracies, most of the propaganda bureaucracy was dismantled after World War I, but this was not the case in totalitarian states like Germany and Japan.
 1. Nazi Germany's Propaganda Ministry controlled every aspect of information. Years before the war started, it had a department devoted to military propaganda. The Japanese had a very similar propaganda system, the National Board of Information.
 2. Great Britain and the United States both allowed the private media great latitude, which resulted in its war propaganda being more effective.
 3. Propaganda continued to be used by governments during the Cold War. Soviet propaganda was more successful than that of the West.
- III. Let us now turn to another aspect of information warfare: espionage, or spying.
 - A. Obviously, it is very important to keep military secrets from the enemy. Too much secrecy, however, can be a problem in war.
 1. The restriction of communication often had more to do with bureaucratic rivalry than with security. The Japanese army and navy, for example, almost never gave each other secret information.
 2. At the beginning of the 20th century, military intelligence was fairly primitive. Police spying was much more advanced, and secret policemen developed most of the techniques of modern information gathering.
 3. Much of the intelligence and counterintelligence work involved agents; this is called human intelligence (HUMINT). The interception and decoding of messages became increasingly important; this is called signals intelligence (SIGINT).

- B. The Soviet Union developed the most sophisticated espionage system in the world during the 1920s and 1930s.
 - 1. Soviet agents used infiltration, kidnapping, disinformation, and murder to disrupt their political enemies overseas. During the 1930s, the Soviets turned their attention to espionage and built up a very successful system of spies.
 - 2. Two countries dominated signals intelligence in the 1930s: the United States and Poland.
 - 3. During the Cold War, the size of intelligence agencies grew enormously. The Central Intelligence Agency and the National Security Agency had upward of 100,000 employees. The KGB was even larger.
 - 4. The United States and its allies remained the most successful in signals intelligence, including the use of satellites and the capturing of transmissions.
- C. The success of 20th-century intelligence operations was rather limited considering the enormous amounts of money and energy expended.
- D. The impact of human spies was much more in the area of perception.
 - 1. British military intelligence was established partly due to the publication of a popular novel.
 - 2. Spy scares were in part responsible for some of the century's most notorious mass arrests, deportations, and internments of alien and suspect populations. The communist spy scares in the United States resulted in hundreds of people losing their jobs and livelihoods.
 - 3. There is no question that the perception of the danger of enemy spying was always greater than its reality. The reputation of spies benefited from government propaganda, journalism, novels, and movies.
 - 4. The ever-more sophisticated electronic surveillance, cryptanalysis, and intelligence analysis had a great effect on the development of technology in the 20th century

Suggested Reading:

Andrew and Mitrokhin, *The Sword and the Shield*.

Boggs and Pollard, *The Hollywood War Machine*.

Taylor, *Munitions of the Mind*.

Questions to Consider:

- 1. What was the role of espionage in military success and failure?
- 2. How did the control of information during wartime affect societies in the 20th century?

Lecture Forty-Six

Guerrilla War and Terrorism

Scope: During World War I, both the German and British armies experimented with guerrilla war as an adjunct to regular conflict. In the interwar period, guerrilla warfare became associated with political and revolutionary conflict, especially among communists, and was not distinguished from terrorism as a tool of armed struggle. As successful guerrilla wars can create nation-states or recognized governments, ambiguity continues as to its relationship to the laws of war. Terrorism also developed out of the assassination and bombing campaigns of the anarchist movement and was adopted by various revolutionary groups throughout the century. Both guerrilla war and terrorism have spawn counterinsurgency theory and method.

Outline

- I. In virtually no area of military conflict is ambiguity more apparent, and more important, than in guerrilla war and terrorism.
 - A. The term “guerrilla” originated during the Spanish uprising against the French in the Napoleonic Wars.
 - B. There is nothing particularly modern about guerrilla war.
 1. The fighting of 17th-century New England Indians was described as “the skulking way of war.”
 2. During World War I, the German general Paul von Lettow-Vorbeck led a very successful guerrilla war campaign in East Africa against British forces.
 - C. In the 20th century, the term “guerrilla” took on a political connotation. Mao Tse-tung (or rather Chu Te, from whom Mao plagiarized) gave guerrilla war a specifically communist meaning.
 - D. The ambiguity about the legitimate use of force is a very important issue and became ever more important in the 20th century.
 1. Revolutionary theory tends to distinguish guerrilla warfare from terrorism in terms of different areas of operations: the guerrilla in the country and the terrorist in cities.
 2. This definition masks a key difference between terrorism and guerrilla war: their targets.
 3. The entire point of terrorism is to kill civilians to create terror.
 4. Trying to distinguish guerrilla war and terrorism is not simply a matter of semantics. In his book *In the Red Zone*, Steven Vincent wrote about the danger of using terms such as “insurgents” or “guerrillas” when referring to terrorists.
 - E. From the point of view of military history, terrorists more resemble criminals than they do soldiers.
- II. The early 20th century saw two insurgencies that would help define guerrilla war and anarchist movements that would set the stage for 20th-century terrorism.
 - A. Those insurgencies were the Filipino uprising against the United States and the Boer War.
 - B. Around the same time as those conflicts, the anarchist movement embarked on a campaign of bombing and assassinations.
 1. Anarchists assassinated not only President McKinley but also the president of France, the king of Italy, and the premier of Bulgaria.
 2. There were dozens of bombings, mainly of economic targets. Anarchists tended to try to avoid civilian casualties, though 38 people were killed and 400 injured in the Wall Street bombing of 1920.
 3. The anarchist terrorism died out, but their methods of assassination and bombing continued to be used through the century.
 - C. There were several developments during World War I that led to the expansion of both 20th-century guerrilla war and terrorism.
 1. The Irish revolt that broke out in 1916 against British rule was repressed, but after the war the Irish Republican Army waged a rural guerrilla war and an urban terror campaign.
 2. The British responded with a brutal counterinsurgency, led by the notorious Black and Tans.
 3. The IRA became a model for modern insurgencies, and their campaign of terror attacks against British targets continued well into the 1990s.
 4. One of the features of both guerrilla wars and terrorism is that they tend to last much longer, although at a lower intensity, than conventional wars.
 5. Both guerrilla war and urban terrorism became much more common due to two developments in weapons technology: the invention of high explosives and the development of rapid-fire weapons.

III. Modern armies often responded to guerrilla war by attempting to find a key method of counterinsurgency.

- A.** Since there was no concentrated enemy force to attack, counterinsurgency generally relied on small patrols and posts, which were vulnerable to ambush.
- B.** Terrorism continued to be used before, during, and after World War II by various political groups.

Suggested Reading:

Beah, *A Long Way Gone*.

Beckett, *Modern Insurgencies and Counter-Insurgencies*.

Clayton, *Frontiersmen*.

Questions to Consider:

1. How did guerrilla war and terrorism develop during the 20th century?
2. In what ways did states try to combat these methods of fighting?

Lecture Forty-Seven

The Struggle for Peace and Justice

Scope: Modern international law of war developed out of both academic study of law and the development of international treaties, such as the Geneva Convention. One focus of such a movement was removing civilians as a legitimate target of war, which led to the notion of a war crime. The failure of national governments to punish war criminals led to the growth of international war crimes tribunals, first temporary and then permanent. The 20th century also saw a movement to end war, with the League of Nations, the United Nations, and various treaties to limit weaponry. Pacifist movements grew in the first half of the century but waned in the second half.

Outline

- I. The 20th century saw the first serious movement to address the issue of criminality in, and of, war. The notion of a war crime and of war criminals developed in two parallel areas.
 - A. First was the area of the study and application of international law.
 - 1. A law of land war was commissioned by Abraham Lincoln and written by Franz Lieber, a professor at Columbia College.
 - 2. The Lieber code covered many of the issues that would arise in 20th-century laws of war.
 - 3. The growth of an academic discipline of international law encouraged international meetings to discuss the legal issues of war.
 - 4. The development of an international law of war was hindered by the fact that there was no sovereign international body to enforce it.
 - 5. Thus it was necessary to use treaties to make a law of war.
 - B. Secondly, the creation of the International Red Cross was a defining moment in the development of international law regarding warfare.
 - 1. The International Red Cross's founder, Henri Dunant, organized the first Geneva Convention in 1864, followed by more conventions at Geneva and The Hague.
 - 2. The Geneva and Hague conventions defined the legal treatment of prisoners and civilians and banned certain weapons.
 - C. One of the most important and successful elements of the Geneva Convention concerned the treatment of prisoners of war.
- II. The Hague and Geneva conventions also banned the mistreatment of civilians.
 - A. The term "war crimes" refers specifically to the actions of the military vis-à-vis civilians.
 - B. After World War I, there was great pressure to punish German war criminals.
 - C. During World War II, the Allies established the United Nations War Crimes Commission, which was in essence a committee of lawyers, each representing a different Allied nation.
 - 1. The War Crimes Commission prepared a file on each report of a war crime and decided if there was enough evidence to warrant further investigation after the end of the war.
 - 2. Soon, the commission realized that the Nazis were not just committing the kinds of crimes against the laws of war that they were tasked with investigating. Rather, there was genocide.
 - 3. The commission realized that in order to prosecute such cases, two things would be necessary. First was a legal basis for prosecuting such crimes. Second was a judicial infrastructure in which these crimes could be prosecuted.
 - D. Allied military authorities, however, did not implement the advice of the commission in the war crimes trials after World War II.
- III. During the 20th century, pacifism became not only more important but also more secular.
 - A. During World War I, a number of peace groups were founded in the United States.
 - B. After the war, the League of Nations was established and the Kellogg-Briand pact was signed, renouncing "war as an instrument of national policy."
 - C. The notion that force of arms was an illegitimate way of achieving power not only grew as an ideology but also played an increasing role in international law.
 - D. After World War I, a number of very influential antiwar works of art appeared.

- E. Though the popular pacifist movement of the 1920s and 1930s waned, the United Nations was founded in 1945 with the express purpose of preventing war.
 - 1. In general, it has not been much more successful than its predecessor, though its peacekeeping forces and humanitarian aid have ameliorated the effect of conflicts.
 - 2. Since World War II, most peace movements have revolved around individual conflicts rather than an attempt to ban war altogether.
 - 3. The most active popular antiwar movement in the 1950s and early 1960s was the nuclear disarmament movement in response to the fear of atomic warfare.
 - 4. The disarmament movement had some successes in reducing the number of nuclear and biological weapons and land mines, but little attention was paid to the trade in small arms.

Suggested Reading:

Kurlansky, *Non-Violence*.

Suri, *Power and Protest*.

Questions to Consider:

- 1. How did the concept of war crimes develop during the 20th century?
- 2. What has led to some of the successes and failures of the pacifist movement in the 20th century?

Lecture Forty-Eight

Warfare at the Turn of a New Century

Scope: Militaries still focus on high-technology weapons, but it is the inexpensive assault rifle that drives armed conflict. Peacekeeping is now a major activity of modern armies, as asymmetrical wars make up most of the world's military conflicts. The legal lines between war and other forms of group conflict have blurred, and in many countries the line between armies, militias, and gangs is thin or nonexistent. Despite the impression created by the media, war is becoming rarer. The potential for a major war is still considerable, however, especially in the Middle East and East Asia. Peace studies has become popular at universities but suffers from a lack of knowledge about warfare, despite the rise of new military history. Studying war is a critical part of the struggle to end it.

Outline

- I. Over the course of world history, new weapons systems have generally led first to greater centralization and then to decentralization, as the ability to access and use the new weapons technology spread.
 - A. One sees elements of both trends over the two decades since the fall of the Berlin Wall, and it is difficult to see in which direction we are going.
 1. Major states still maintain large arsenals of powerful and expensive weapons systems, making it difficult to challenge the authority of a stable government.
 2. On the other hand, the proliferation of relatively inexpensive small arms has meant that a small ministate can take control from weak central government.
 3. Most Western military budgets are spent in maintaining large conventional forces and buying expensive weapons systems.
 4. Although high-priced weapons receive the most press, it is the inexpensive assault rifle that drives armed conflict.
 5. The use of child soldiers, made possible in part by light, cheap assault rifles, has escalated over the last 20 years.
 - B. Certainly the most profound change to occur in the last 20 years is the development of the Internet, along with the innovations in computer hardware and software that have accompanied it.
 1. The Internet has had a dramatic, but not yet entirely clear, effect on both tactical and strategic intelligence.
 2. The gathering and dissemination of military intelligence is greatly facilitated by new technology. This is not always a good thing; one gets so much information that it is paralyzing.
 3. The other side of the Internet revolution is that it puts powerful tools of intelligence gathering and analysis in the hands of nonstate groups, such as insurgents and terrorists.
 4. The most active weapons race going on today is between hackers and antihackers.
 - C. Despite certain horrendous conflicts and the impression given by the media, there is in fact a trend toward fewer wars and fewer casualties.
- II. The legal lines between war and other forms of group conflict have blurred.
 - A. In less powerful or organized states, any individual or group that has access to enough money to equip an army with weapons can create a state of sorts.
 1. Counterinsurgency and counterterrorism involve police and intelligence organizations, which have become increasingly militarized.
 2. The blurring of lines between crime and war is not simply a legal or academic issue. There does seem to be a trend for crime to be militarized, which challenges traditional responses to it.
 - B. Over the last 20 years, great progress was made in the establishment of international courts to deal with war crimes.
 - C. Piracy has reemerged, especially along the coast of East Africa and in Southeast Asia.
 1. Although the United States holds a position similar to that of the Royal Navy in the 18th and 19th centuries, it has not taken on the job of suppressing piracy.
 2. The September 2008 capture by Somali pirates of a Ukrainian ship carrying battle tanks to Kenya may lead to a more serious attitude toward this problem.
 3. The development of international law and international peacekeeping forces suggests that perhaps the seas could be placed under international jurisdiction.

III. By historical standards, there has been relatively little war since 1989.

- A.** Statistical studies have shown that by almost any standard, warfare has decreased steadily in the last 20 years.
 - 1. This does not seem to be a function of any organized movement. In fact, the international pacifist movement is less active today than it was after the two world wars.
 - 2. In general, both popular and diplomatic attempts to end war have been failures.
 - 3. A very interesting new element is the globalization of the stock market and international investment. Market reactions may in some cases act as a deterrent to war.
- B.** This general trend toward peace may or may not hold up.
 - 1. There is a powerful and highly militant supernational ideology that has grown stronger in the past 20 years: Islamic fundamentalism.
 - 2. Despite its militant origins, modern Islam is not any more or less inclined to be violent as a function of its theology.
 - 3. Many aspects of the ideology of al-Qaeda owe far more to European fascism than to the Koran.
- C.** After the fall of the Soviet Union in 1991, it became increasingly common to refer to the “American empire.”
 - 1. But by any conventional meaning of the term “empire,” there is no American empire.
 - 2. What is often meant is not political domination but the cultural and economic influence of the United States on the rest of the world.
 - 3. One might argue that an American empire existed during the Cold War, when the United States could and did use its military to influence the policy of nominally independent states.
 - 4. From a military historical perspective, the American empire is simply a scholarly myth.
- D.** Overall, the trend toward increasing professionalization of the military has continued. Increasingly advanced states are abandoning conscription for a highly trained volunteer force.
 - 1. One of the things that has struck me, in both my personal interactions and academic ones, is the high quality of the modern American military.
 - 2. All enlisted personnel in the United States have a high school diploma or the equivalent. All American officers must have a bachelor’s degree, and most field and general officers have advanced degrees.
 - 3. I find in the American military a remarkable mix of idealism and practicality—of honor and duty on one hand, and of the responsibility of a free citizen on the other.
 - 4. While the military has developed an academic culture, our academic culture has basically turned its back on the study of warfare. Part of the purpose of my own research and writing is to try to reconnect the worlds of the military and academia.
 - 5. Studying war is a critical part of the struggle to end it. I hope this course might be part of a general trend toward a time when warfare is indeed a thing of the past.

Suggested Reading:

Black, *War and the New Disorder*.

Gunaratna, *Inside Al Qaeda*.

Questions to Consider:

- 1. What explains the rise of asymmetrical warfare in the last 20 years?
- 2. What are the prospects for peace in the 21st century?

Timeline

B.C.

- c. 4000 First evidence of horse domestication.
- c. 1600 Rise of the Shang dynasty in China.
- c. 1450 New type of bronze sword developed, possibly contributing to catastrophic invasions in the Near East.
- c. 1000 The Dorian invasion, leading to the establishment of the Greek city-states.
- c. 900 The first evidence of the use of cavalry, in Assyria; first evidence of civilization in Mesoamerica.
- c. 745 Tiglath-Pileser III reforms the Assyrian military and establishes the Neo-Assyrian Empire.
- c. 594 Solon institutes constitutional reforms in Athens, giving a degree of power to the hoplites.
- c. 560 The rise of the Persian Empire under Cyrus the Great.
- 480 The unified city-states of Greece defeat invading Persian forces.
- c. 400 The Chou dynasty collapses and the Warring States period begins in China.
- 336–323 Alexander the Great conquers the Persian Empire.
- c. 250 The Parthians take over Persia, establishing trade control between the West and China.
- 220 The unification of China under the Ch'in dynasty.
- 202 Rome defeats Carthage, ending the Punic War.

A.D.

- 66–73 “Jewish War” with the Roman Empire.
- c. 100 Maize introduced to North America from Mesoamerica, prompting the development of agricultural civilizations.
- c. 395 Christianity becomes the official religion of the Roman Empire.
- 570 Birth of the prophet Muhammad.
- 751 After defeating the Spanish Muslims, Charles Martel becomes king of the Franks and establishes the Carolingian dynasty; Muslim forces defeat Tang forces at the Battle of the Talas River.
- 1085 Christian kingdoms from northern Spain capture Toledo from the Spanish Muslims.
- 1204 Fourth Crusade.
- 1288 Oldest surviving example of a metal handgun, from China.
- 1403 Florence changes its definition of usury, allowing Christians to practice banking and opening up the credit market.
- 1453 Ottoman capture of Constantinople.
- 1494 Treaty of Tordesillas divides the non-European world into Spanish and Portuguese hemispheres.
- 1543 Portuguese traders introduce the harquebus to the Japanese.
- 1571 The Battle of Lepanto, signaling an end to Ottoman control over the Mediterranean.
- 1595 Justus Lipsius publishes *On the Roman Military in Five Books*.
- 1637–1638 Shimabara Rebellion in Japan.

1644	The Manchu conquer the Ming in China.
1756	The outbreak of the Seven Years' War between Britain, France, and Spain.
1792	The U.S. passes the Militia Acts, subjecting every "able-bodied white male" to military service.
1793	France institutes the <i>levée en masse</i> , or mass conscription.
1832	Carl von Clausewitz's posthumous influential military study, <i>On War</i> .
1864	The First Geneva Convention, organized by Henri Dunant.
1867	The Meiji Restoration in Japan leads to the establishment of a modern army and navy.
1885	Ferdinand Mannlicher introduces the first semiautomatic weapon; Hiram Maxim introduces the first modern machine gun.
1893	William Britain introduces the first cast-lead toy soldier.
1911	The first bombs are dropped in war, in Libya.
1914	Archduke Ferdinand assassinated; World War I begins.
1919	Treaty of Versailles ends World War I.
1928	Kellogg-Briand Treaty outlaws war "as an instrument of national policy."
1939	German-Soviet nonaggression pact signed; World War II begins.
1945	The founding of the United Nations.
1946	The Nuremberg War Crimes Trials.
1954	First atomic submarine launched.
1983	The first suicide truck bombing occurs in Lebanon.
1991	The fall of the Soviet Union.
1993	John Keegan's <i>A History of Warfare</i> , in which he argues that warfare is an expression of culture.

Glossary

Ahura Mazda: Zoroastrian Persian god.

alii: The ruling class of Hawaii; the descendents of conquerors from Tahiti, they ruled over the commoners.
See also Kanakas.

Amazons: A mythical tribe of women warriors, who lived on the steppes. The idea probably derives from the real use of women in fighting by steppe peoples.

Amr al-Mumin (Commander of the Faithful): Military and political title of Muhammad and his successors.

anarchism: A revolutionary movement arising in the 19th century that rejected government. Loosely organized groups of anarchists launched one of the first terrorist campaigns, exploding bombs and assassinating political leaders in various countries.

apocalypse: The idea, drawn from Zoroastrianism and borrowed into both Judaism and Christianity, that the world will come to an end in a final battle between good and evil.

Arianism: An ancient division of Christianity; followed by many of the Germans who took over the western Roman Empire.

aristocrat (or noble): A man who holds a leading position in a society on the basis of high birth. Aristocracy and nobility can be created in war but then become hereditary, either in law or practice.

Arya: A term that can mean “chariot noble” and is seen in the linguistic term “Aryan” as well as in the toponyms “Iran” and “Ireland.”

askari: From an Arabic word for “soldier,” it refers to Africans enlisted into colonial, Western-style regiments.
See also sepooy.

assault rifle: A type of rifle, first introduced by the Germans in 1944, that could be switched from semiautomatic to automatic fire.

Assur: Assyrian god of war and primary (henotheistic) deity.

asymmetrical war: A 21st-century term, referring to the two sides in a conflict using different types of warfare—typically terrorism on one side and conventional operations on the other.

automatic: A firing system in which the recoil or gas from a shot both reloads the next bullet and fires it. The firer need only keep a finger on the trigger to fire a constant stream of bullets.

Bactrian camel: Two-humped camel used on the steppes, as a pack animal but not as a mount in warfare.

banners: A type of military organization introduced into China by the Manchu Ch’ing dynasty.

Bantu: A branch of the Niger-Congo language family; speakers of these languages migrated south into central and southern Africa, using iron tools and weapons.

bomber: An airplane designed primarily to drop explosives on a target located on land or sea.

boomerang: A curved wooden throwing stick, used as a weapon in Australia.

breech-loader: A firearm that can be loaded from the rear and not from the muzzle.

Brown Bess: A model of flintlock musket; used by the British army from the late 17th century through the 18th century.

caliph: The religious title of the successors to Muhammad.

cannon: A large gun, usually a long, thick barrel mounted on a carriage.

cartridge: Originally referred to a paper package containing both gunpowder and ball that made loading easier. Later, it refers to a metal casing that includes not only powder and bullet, but primer as well.

cataphract: A heavily armored horseman, whose horse was also armored.

Catholic Church (or more correctly, Roman Catholic Church): A division of Christianity once confined to Europe, now the largest in the world.

cavalry: Soldiers or warriors who fight from horseback.

chain-mail: Armor made out of iron or steel rings.

chassepot: The first practical bolt-action rifle, introduced in 1866.

citadel: A fortress or stronghold built on a high point over a city or settlement.

cleanliness of blood (*limpieza de sangre*): A belief arising in 16th-century Spain that only those of Christian descent (as opposed to converted Muslims) could be nobles. It is thought to be a major factor in the rise of modern racism.

Comancheria: A large territory in the American West during the 18th and 19th centuries, within which the Comanche controlled fur hunting and trading. It stretched from the northern portion of Spanish control in New Mexico to French Louisiana, along the Mississippi.

commerce raiding: *See guerre de course.*

commissioned officer: A category of officer in the regimental system who has received a commission of rank originally issued by the king or central government. Commissions could originally be bought and sold but later were issued to individuals by the government.

communism: A revolutionary movement of the 19th and 20th centuries based on the theories of Karl Marx and believing in an inevitable clash between economic classes.

composite bow: A bow made up of both wood and bone, held together with sinew, which is more powerful than an equivalently sized simple bow made only of wood.

Confucianism: A Chinese ideology that stresses virtue and piety toward ancestors.

constabulary units: Colonial military and paramilitary organizations, generally made up of indigenous troops and Western officers, used as police and in counterinsurgency.

core: A common cultural and technological region, which ultimately covered a broad area of Europe, North Africa, and Asia, running from the Atlantic to the Pacific.

corned gunpowder: An improved form of gunpowder, in which the ingredients are soaked in vinegar or urine, then dried, forming small spheres. This treatment made the powder not only more powerful but also more stable, and easier to accurately measure.

corsairs: Pirate ships, especially those of the Muslim states of North Africa, that engaged primarily in seizing crews and passengers for sale as slaves.

crossbow: A mechanical bow that increases firing power by means of spring-loading.

Crusade: Originally referred to a series of wars initiated by, or approved by, the pope, with the intent of recapturing Jerusalem and later of spreading Christianity or suppressing heresy. More broadly, it is used for any war or movement with a Christian evangelical motivation.

Cultural Revolution: Movement initiated by Mao Tse-tung to suppress opposition to his rule; millions were displaced, and hundreds of thousands died.

culverin: An early type of cannon.

cuneiform: First form of writing developed in Mesopotamia.

daric: A type of gold coin introduced by the Persians.

dharma yuddha: Literally “dharma war” or “right path war,” a term used to refer to wars intended to spread, or defend, either Buddhism or Hinduism.

dialectic: Idea, introduced by Friedrich Hegel, that an idea or event (thesis) interacts with its opposite (antithesis) to produce a synthesis, which in turn becomes a new thesis.

drill: The practice of military arts, especially of the manual of arms originally used to load and fire guns, and of the steps necessary in military marching.

dromedary: One-humped camel, used both as a pack animal and as a mount in warfare.

dynamiters: A 19th-century term for terrorists.

emergent property: Idea that elements come out of an interaction of some sort.

En: Sumerian priest-king who first ruled Mesopotamian city-states.

encomienda: A land grant widely used by the Spanish in the New World. While it gave the colonist control over the labor of the Indians on the land, unlike a fief, it involved nonmilitary service.

enlisted man: A category of soldier in the regimental system who enters service by being listed on the regiment's rolls, as opposed to being commissioned.

factor: A trader in the employ of a mercantile company, usually in charge of a fixed trading post, called a factory.

fascism: A 20th-century ideology characterized by nationalism, militarism, and often racism.

federates: A late Roman institution, begun in the 4th century A.D., of using tribal forces, who fought under their own kings and had their own territory, as part of the Roman army.

feudalism: A term originally used to refer to the political and military system used in Europe during the Middle Ages, in which knights and nobles received fiefs in exchange for military service. It is more generally used to refer to any system in which land tenure is given in exchange for military service.

fighter: An airplane designed primarily to shoot down enemy airplanes.

fletch: Feathers placed at the end of a dart or arrow to stabilize it in flight and improve accuracy.

flintlock: A type of spring-operated firing mechanism for muskets, in which the trigger pull releases a hammer holding a flint, which strikes a metal plate, causing a spark that ignites the gunpowder.

flower war: A type of ritual warfare conducted by the Aztecs and other Mesoamericans whose primary purpose was to obtain captives for human sacrifice.

frigate: A fifth-rate warship of the sailing age. *See also* **rate**.

fubing: The Chinese conscription system introduced by the Han and revived by the Tang.

galleon: Type of ship developed in Europe; lacked oars and was entirely wind driven. Multiple masts carried a full rigging, and portholes on the sides allowed cannons to be fired from below the deck.

ge: Chinese dagger-ax, often on a pole, sometimes translated as "halberd."

general staff: A division of a Western-style army exclusively devoted to operational planning.

genocide: A legal term coined by the Polish jurist Raphael Lemkin to refer to the attempted destruction of an entire people or its culture.

Greek fire: An incendiary weapon that took at least two forms—one a solid that exploded on impact and the second a liquid that was lit and projected toward the enemy. Invented in the 7th century, its exact formula remains a matter of debate, although it certainly included naphtha (natural petroleum) and sulfur.

grog: Rum mixed with water, an unpopular 18th-century change to the British Royal Navy liquor ration.

guerre de course: Literally "war on trade," also called "commerce raiding"; a type of warfare in which enemy merchant vessels were targets.

guerrilla war: A type of fighting involving hit-and-run tactics, often used by insurgents and revolutionaries.

gunpowder: An explosive formula of charcoal, sulfur, and potassium nitrate, usually in the form of saltpeter.

harquebus: French corruption of the Dutch *hackbut* ("crooked butt"), it is also known as the matchlock gun. The butt of the gun is bent, allowing the shoulder to take the recoil and for aiming down the barrel.

henotheism: The belief that while there are many gods, one god should be worshipped above all the rest. The Assyrian treatment of Assur is an example.

hieroglyphics: First form of writing developed in Egypt.

high explosive: An explosive formula using compounds such as nitroglycerin to produce very large explosions. An early version was dynamite, patented by Alfred Nobel in 1867. It was used in artillery shells, bombs, and mines.

Holocaust: The Nazi genocide against the Jewish people of Europe. Some 6 million Jews were murdered by deliberate starvation, overwork, and exposure, as well as by shooting and gassing.

hoplite: A type of Greek soldier, named after the large round shield (*hoplon*) he carried. Hoplites were heavily armored spearmen who fought in a solid formation called a phalanx. Citizens of city-states who had enough wealth to buy hoplite equipment were required to do so, and to serve in the army.

Horus: Egyptian falcon-god who sometimes functions as a war god.

human intelligence (HUMINT): The obtaining of information about the enemy through agents, often spies.

hussar: Saber-armed light cavalry used by most European armies in the 19th century. This type of cavalry was borrowed from the Hungarian, the name from the Latin *cursarius* (the same root as corsair).

Hyksos: A group of chariot warriors, probably Canaanites, who conquered Egypt in the 17th century B.C.

Indo-European: Language family that includes European languages such as Germanic, Romance, and Slavic, as well as Iranian and Indian languages.

intelligence: The collection and analysis of information, generally military and often secret, about the enemy.

ironclad: Originally a wooden ship with iron armor plating; later a ship made entirely of iron.

Janissary: An elite Ottoman soldier, first raised in the 14th century and recruited from Christian children who were raised as Muslims. Originally put through an intensive training program and among the first units to use firearms and military music. By the 18th century, the system had begun to deteriorate. The word comes from the Turkish *yeni çeri* (“new soldier”).

Jesuits (or Society of Jesus): A monastic order organized along paramilitary lines but using knowledge as a weapon to spread Catholicism and oppose Protestantism.

jihād: Literally “struggle,” its military meaning referred either to the spread of Islam by military force or to the ejection of non-Muslims (principally Christians) from land that had already been subject to Islam.

Kanakas: Hawaiians of the commoner class, frequently used as sailors in Western fleets. *See also alii.*

khaki: A dust color used in military uniforms, first by the English and then by many Western forces. The word comes from Hindi.

khan (or khagan): A Turkish term for the head of a tribal confederation on the steppes.

kilombo: A military compound used by the Imbagala, a group of marauders active in 16th-century Angola. The term passes into Portuguese as *quilombo*. *See also Maroon states.*

knobkerry: A wooden club with a ball-shaped head; like a mace.

Kshatriya: A warrior class found in both early Iran and India.

Kumarbi myth: Story in which younger gods overthrew older ones; an early example of divine warfare.

lascar: A sailor from India or Southeast Asia on a Western-style ship. The term comes either from the Persian *lashkar* (military camp) or from the Arabic *al-askar* (the soldier). *See also askari; Kanakas.*

lateen sail: A triangular sail that allows a ship to tack, or sail against the wind.

legalism: A Chinese ideology that stressed obedience to the state.

letter of marque: A document issued by a government authorizing private vessels to attack and seize enemy merchant ships. *See also privateer.*

levy: Commoners, often peasants, conscripted into military service.

limes (pl. limites): Roman border fortification.

linear B: A type of writing used in Mycenaean Greece.

longbow: A simple bow whose firing power is increased by increasing the length of the bow.

lugal: Sumerian war-king, literally “big man.”

ma’at: Egyptian notion of universal harmony, which could be disrupted by, or renewed by, war.

mace: A type of club with a stone or metal head.

machine gun: A weapon designed to fire a large stream of bullets in a short period. Early ones were crank operated (such as the Gatling gun, patented in 1865), but the true machine gun, introduced in 1885, was an automatic weapon. *See also automatic.*

Mahayana: One of the two main divisions of Buddhism.

Mamluks (also **Mamelukes**): Muslim slave soldiers; also the slave dynasty that ruled Egypt from the 13th to the 16th century and dominated it until the 19th.

man of war: *See ship of the line.*

mandate of heaven: The idea, introduced by the Chou, that Tien, the god of heaven, transferred the imperial dynasty from a corrupt family to one that was deserving.

Manichaeism: An offshoot from Zoroastrianism, with Christian influence, that became a popular religion among the steppe peoples, especially the Turks, before they converted to Islam.

margin: A cultural and technological region outside of the core, including central and southern Africa, the Americas, and Oceania.

Marian reform: A number of innovations, attributed to Gaius Marius, that principally allowed proletarians (those without enough wealth to buy arms) to serve in the army.

Maroon states: A political unit set up, principally in South and Central America, by escaped slaves (Maroons) and others. Called *quilombos* in Portuguese.

Maryannu: A class of chariot nobility found in the Near East; possible cognate of the Indo-European “Arya.”

Mauser: The first bolt-action rifle to use an all-metal cartridge, introduced in 1871. It greatly increased the rate of fire.

mercantile companies: Private firms granted government monopolies over all trade in a particular region. Examples were the Dutch and English East Indian companies, the Hudson Bay Company, and the Royal African Company. They were an important element in European imperialism.

mercenaries: Contracted or privately paid soldiers, usually foreign, who sell their services to a government.

Messiah: A figure, borrowed from Zoroastrianism into both Judaism and Christianity, who is to lead the forces of God against those of the evil one and establish a Kingdom of Heaven on earth.

militarism: A term that can mean either a warlike tendency on the part of a state or a predominance of the military within the state.

military academy: A school, first developed in 18th-century Europe, designed to train commissioned officers.

military revolution: A term originally used to refer to the changes in 16th-century European warfare; now used more generally to refer to any period of dramatic innovation, especially in weaponry.

militia: A military force made up of civilians, it can be either volunteer or compulsory.

mine: In the military sense, originally a tunnel, either collapsed with a fire or later filled with gunpowder, used mainly in siege warfare. It later came to refer to explosives triggered by electricity or by pressure, used in both naval and land versions.

Minié ball: A type of bullet, invented by Claude-Étienne Minié in 1847, that allowed the use of muzzle-loading rifles. Grooves in the bullet’s rear caused it to expand and hug the rifling, making it spin and giving it much better range and accuracy.

Mithra: Persian god popular with soldiers.

modern war: A category developed by the anthropologist Harry H. Turney-High. He defined it as the use of tactics and of command and control. The term is used more loosely to refer to warfare in the 19th and 20th centuries.

Mohism: A Chinese ideology that stressed pacifism and love for others.

Monophysitism: One of the divisions of Christianity, mainly practiced in the Near East and East Africa.

mortar: Originally “trench mortar”; a firing tube into which a rocket-propelled shell is dropped, used since the early 20th century as an infantry support weapon.

muscular Christianity: A loose movement within American and British Protestantism that advocated an aggressive approach to the spread of Protestant Christianity, identified with “civilization.”

musket: Originally a smaller version of the matchlock; with the introduction of the flintlock, it became the term for all nonrifled long firearms.

Nabi: “Prophet”; the religious title of Muhammad.

national socialism (also **Nazism**): The German fascist movement, characterized by its military aggressiveness and fanatical anti-Semitism.

Naue II sword (or **tongue-hilt sword**): A type of sword made with a solid blade and tongue, first made in bronze and then in iron.

needle gun: The first practical breech-loading rifle, introduced in 1848.

Nergal: Sumerian god of war.

Nestorians (Church of the East): A division of Christianity that spread across Central Asia to China in the Middle Ages.

Nisaeen horses: Large breed of horses raised first in the Ferghana Valley in the steppes, called by the Chinese “blood-sweating horses.”

nobles of the sword (*noblesse d’épée*): French aristocrats who served as officers in the professional French army.

noncommissioned officer: A category of officer in the regimental system that receives its rank from the commander of the regiment.

oracle bone script: The first form of writing developed in China.

Orthodoxy: A division of Christianity that was once the imperial religion of the Byzantine Empire and is now in several national groupings, the largest of which is Russian Orthodoxy.

pacifism: The belief that war is not a justifiable means of solving political or social problems.

Pali canon: Early Buddhist writings.

pan-Arabism: A political movement that arose in the 19th century that advocated uniting all Arab speakers, regardless of religion, into a single nation.

pan-Islamism: A political movement that arose in the 19th century that advocated uniting all Muslim states into a single political unit, usually conceived of as a new caliphate.

pastoralism: An economic system reliant on the herding of animals and trade with, and raiding of, settled cultures.

pentekonter: A 50-oared ship used by early Greek pirates.

percussion cap: A small metal cap filled with mercury fulminate that replaced flint in the firing mechanism of muskets beginning in the 1830s.

philology: The science of reconstructing ancient texts, an important element in the Renaissance and the 16th-century military revolution.

pike: A long spear, over 10 feet in length, usually held with both hands.

poison gas: The use of various toxic substances in gaseous form as a weapon. They range from asphyxiating agents to blistering agents to nerve agents.

polis (pl. **poleis**): A Greek city-state.

primer: Originally the gunpowder placed on a flintlock’s pan, which ignited the main charge in the barrel. Later it came to refer to the charge placed at the back of a metal cartridge that, upon being hit by the firing pin, ignites the main charge.

primitive war: A category developed by the anthropologist Harry H. Turney-High. He defined it as a lack of tactics and of command and control. The term is used more loosely to refer to the warfare of hunter-gatherers or of prehistoric cultures.

privateer: A private vessel authorized to attack an enemy merchant vessel and seize its cargo; a form of legalized pirate. *See also* **letter of marque**.

Protestantism: A division of Christianity that arose out of Catholicism in the Reformation of the 16th century. In its Calvinist form, it had a great deal of influence on armies and war.

Quakerism: A division of Protestantism characterized by a lack of church hierarchy and by pacifism.

rate: A category of Western-style warship from the 17th to the 19th century, based on the number of guns it carried.

regiment: A type of military unit, developed in 16th-century Spain and France, that became the basis for Western-style military organization.

rifling: Spiraling etched inside the barrel of a gun, which causes the bullet or shell to spin, increasing accuracy. *See also* **Minié ball**; **breech-loader**.

roll call: An institution of regimental culture in which the unit is assembled and the presence or absence of each soldier is orally reported to the commander.

sangha: Sanskrit for “community,” it can refer to a military unit, a military guild, or a community of monks. A *gana-sangha*, often translated “republic,” seems to be a steppe confederation.

schar: The armed retainers of a German king or noble, they included both freemen and slaves.

scurvy: A vitamin deficiency common among sailors on long voyages. Causes the loss of teeth, and in extreme cases, death. Cured in the 18th century by the introduction of food containing vitamin C, such as sauerkraut and limes.

Sea Peoples: A group of tribes, fighting on foot and armed with swords, that invaded the Near East in the 13th century.

sekbans: Units of settler soldiers, armed with matchlocks, who joined with peasants during a series of 16th-century revolts against Ottoman rule.

Sekhmet: Egyptian goddess who brought both war and disease.

self-strengthening movement (tsu ch'iang): A 19th-century movement to modernize the Ch'ing dynasty, and especially its military, that ultimately failed.

semiautomatic: A firing system in which the recoil or the gas from a shot reloads the next bullet. The firer need only pull the trigger to fire the next shot.

sepoys: From the Persian word for “soldier,” it came to mean an Indian serving in a colonial, European-style regiment, especially in the service of the East India Company or British army. *See also* **askari**.

settler soldier: A system in which a family is awarded a farm in exchange for providing one adult male to the army. If the soldier cannot be provided, the land is forfeited back to the government.

sextant: A device for determining a ship's location based on the position of stars, vital in long distance navigation.

shah: An Iranian term originally meaning the head of a tribal confederation; later used to refer to a king or emperor in Persian-speaking states.

shan-yu (or chan-yu): A term meaning “ruler,” used by Chinese sources in reference to steppe people.

shekel: First a weight, the basis of the Assyrian silver taxation system; later a coin of that weight.

Shi'a: One of the two major divisions of Islam.

shih: Chinese term for a chariot noble or warrior; later came to mean “gentleman” in the Confucian sense.

ship of the line: The largest of the sailed warships of the 17th to 19th centuries, from first rate to fourth rate. *See also* **rate**.

Sicarii: A Messianic group that assassinated Jewish supporters of Roman rule; the first religious terrorists.

signals intelligence (SIGINT): The obtaining of information about the enemy by intercepting communications, often involving code breaking.

Sikhism: A religion that developed in the Punjab in reaction to the upheaval of the Mughal invasion. The Sikhs created an independent state and were (and are) renowned warriors.

single whip: A tax reform instituted by the Ming dynasty, effectively placing China on the silver standard. Due to China's huge economy, this drove the international search for, and trade in, silver for the next several centuries.

sloop: A small Western-style warship carrying fewer than a dozen guns.

smart bomb: A bomb that is dropped from an aircraft and then guided to its target by radio or video.

smokeless powder: An explosive formula made up of single-base powders, such as nitrocellulose, and double-base powders, such as nitroglycerin. Introduced in the 1880s, it eliminated the thick smoke that had permeated battlefields since the 16th century.

social Darwinism: An ideology of the 19th and 20th centuries derived loosely by applying Darwin's theory of evolution to human societies. Its generally racist followers included both militaristic branches, which believed war strengthened the race, and pacifists, who believed war weakened the race.

Sol Invictus (Unconquerable Sun): A monotheistic deity whose worship some emperors tried to make the state religion of Rome; a precursor to imperial Christianity.

spear-thrower: A notched stick that, by effectively lengthening the throwing arm, allows a spear to be thrown farther and with more power. Also known by the Aztec term *atlatl*.

special forces: Elite units that use guerrilla-style tactics and are common in counterinsurgency operations.

square rigging: Square or rectangular sails that propel a sailing ship forward. *See also* **lateen sail**.

steam turbine: A more effective method of propelling ships, invented in 1884. It extracts thermal energy from steam to drive pistons instead of having the steam directly drive the pistons, as in previous steamship designs. This revolutionized the design of both military and civilian ships.

stirrups: Rings suspended from a saddle that aid a horseman, especially when fighting from horseback.

Stoicism: A variety of Greek philosophy popular among military officers in both Greek and Roman times. It was revived in the Renaissance.

submarine: A ship designed to travel underwater. Early designs go back to the 18th century, but they were first used operationally in the American Civil War. The first fully operational propulsion submarine was launched by the Peruvian navy in 1879.

Sudanic Kingship: A term used to refer to the centralized monarchies of West Africa (formerly known as the Western Sudan), characterized by a semidivine kingship and standing military forces.

Sunni: One of the two major divisions of Islam.

Taoism: A Chinese ideology that stressed withdrawal from the world.

tensility: The ability of a metal to be both strong and flexible.

terrorism: The use of deliberate attacks on civilians, with the intention of undermining civil and military authority.

Theosophy: A 19th-century spiritual organization, important in the pacifist and anticolonial movements, and a great influence on Mahatma Gandhi.

Theravada: One of the two main divisions of Buddhism.

tinku: A kind of ritual warfare carried out by the Incas, Quechua Indians, and other indigenous peoples of South America.

torpedo: Originally a term for a naval mine, it later was used to describe the “fish torpedo”—a self-propelled underwater missile carrying an explosive.

torsion artillery: Machines that propel a stone or bolt by means of torsion, usually by means of twisting a rope with a crank and then releasing it.

trebuchet: A large siege machine that hurled a stone by means of a weighted fulcrum.

trireme: An oar-driven warship with a ram, probably invented by the Phoenicians and later borrowed by the Greeks and Romans.

tufek: A Persian term, originally used for tubes used to blow Greek fire, and after the 15th century used to refer to firearms, especially the arquebus or matchlock.

tumulus: A burial mound often used by steppe peoples to inter nobles, also called a kurgan.

uhlan: A lancer; a type of light cavalry used by most European armies in the 19th century. This type of cavalry was borrowed from the Poles, but the term is Turkish (*oghlan*, meaning “lads” or “boys”).

universal service: A form of conscription introduced in the 19th century in which every adult male is liable for a term of serving in the military, usually partly in active service and partly in a reserve.

Vedic religion: The religious ideology and practices of the Aryans who invaded India, mixed with elements of the indigenous Indus Valley religion.

veterans: Both in the Roman army and in modern, Western-style armies, former soldiers who obtain certain financial payments and/or privileges due to their military service.

Wahhabism: A puritanical sect of Sunni Islam, which arose in Arabia in the 18th century.

war poet: Specifically, a group of English war veterans who wrote generally antiwar poems during and after the First World War. More generally, any poet who writes about war.

wokou: Japanese pirates active from the 13th to the 16th century. These were sometimes Chinese masquerading as Japanese.

***Yahweh Tzaba'ot*:** Usually translated “Lord of hosts,” it literally means “Yahweh of the army” or “Yahweh of war.”

Zionism: A Jewish nationalist movement that arose in the 19th century and culminated in the establishment of the state of Israel.

Zouave: Originally French, this is a type of elite unit, with a distinctive uniform adapted from an Algerian tribe of this name. They wore baggy pantaloons and a tight vest, and this had an impact on fashion, especially women’s fashion.

Biographical Notes

Abbas I (1571–1629): Shah, or ruler, of the Safavid Persian Empire, he imported Western weapons and tactics, defeating both the Ottoman Turks and the Portuguese.

Abu Bakr (c. 573–634): Arab Muslim political and military figure who became the first successor (caliph) to Muhammad. He suppressed a series of anti-Islamic revolts in Arabia in the ridda wars.

Ackerman, Robert (b. 20th century): American archaeologist who discovered the oldest known evidence of the bow and arrow in the Americas.

Aeneas Tacticus (fl. 4th century B.C.): Greek writer of military handbooks; only one, *How to Survive under Siege*, survives. He may be the Arcadian general of the same name who fought at the Battle of Mantinea (362 B.C.).

Aha (fl. c. 3100 B.C.): Traditionally regarded as the second pharaoh of the First Dynasty of Egypt, who first invaded Nubia, or Kush, to the south.

Akbar (1542–1605): Mughal emperor who vastly expanded the dynasty's rule in India.

Alcibiades (451/0–404/3 B.C.): Athenian aristocrat, general, and politician; a student of Socrates.

Aleksey I (1629–1676): Russian czar under whose reign the Russian empire expanded enormously in size.

Alexander III (a.k.a. **Alexander the Great**; 356–323 B.C.): King of Macedonia who conquered the Persian Empire and invaded India.

Ali, Muhammad (1769–1849): Albanian Egyptian military and political figure who attempted to create a modernized state in Egypt. His bid to conquer the Ottoman Empire failed, but he founded a dynasty that ruled Egypt until 1952.

Ammianus Marcellinus (c. 330–395): Roman military officer and historian.

Andreski, Stanislav (a.k.a. **Stanisław Andrzejewski**; 1919–2007): Polish British sociologist and author of *Military Organization and Society* (2nd ed., 1968).

Apuleius (a.k.a. **Lucius Apuleius Platonius**; c. 125–c. 180): North African Roman writer; author of *The Golden Ass*, a humorous novel in which soldiers are featured in several scenes.

Archer, Christon (b. 1940): Canadian military historian; coauthor of *A World History of Warfare* (2002).

Archilochus (d. c. 652 B.C.): Greek lyric poet who described his military adventures in a light-hearted manner.

Aristotle (384–322 B.C.): Greek philosopher; student of Plato and tutor of Alexander the Great.

Arkush, Elizabeth (b. 20th century): American anthropologist who researches precontact warfare in South America.

Ashoka (304–232 B.C.): King of the Indian Mauryan dynasty who after a series of conquests converted to Buddhism and embraced pacifism.

Atahualpa (c. 1500–1533): Ruler of the Incan Empire; defeated and killed by the Spanish.

Ataturk, Kemal (1881–1938): Turkish military and political figure who established the Turkish Republic and became its dictator as president.

Augustine (354–430): Roman convert to Christianity who became a major theologian. He developed the Catholic idea of the “just war.”

Augustus Caesar (a.k.a. **Gaius Julius Caesar Octavianus**; 63 B.C.–A.D. 14): The first Roman emperor, he established the professional imperial Roman army.

Aurangzeb (1618–1707): Mughal emperor who ended the dynasty's toleration of Hinduism, leading to its increasing weakness.

Babur (a.k.a. **Zahir ud-Din Muhammad**; 1483–1530): Founder of the Mughal dynasty. He wrote the *Baburnama*, an autobiography that includes an account of his conquest of India.

Baibars (1223–1277): Mamluk sultan of Egypt who defeated both a Mongol invasion and the Crusaders.

Bakunin, Mikhail (1814–1876): Russian revolutionary and leading anarchist thinker and leader.

Bassford, Christopher (b. 1953): American military historian and Professor of Strategy at the National War College in Washington DC.

Belloc, Hilaire (1870–1953): French British writer.

Bernadotte, Jean-Baptiste (1763–1884): French soldier who rose from the rank of private to become a marshal of France and then king of Sweden.

Besant, Annie Wood (1847–1933): Irish English spiritual and political figure who became a leader figure in the Theosophical movement and in the Indian independence struggle.

Bessemer, Henry (1813–1898): English inventor and businessman who developed a much-improved method for manufacturing steel.

Black, Jeremy (b. 1955): British military historian and coauthor of *War in World History: Society, Technology and War from Ancient Times to the Present* (2008).

Bligh, William (1754–1817): British naval officer most famous for the mutiny on the HMS *Bounty* and his subsequent 3,600-mile voyage in a lifeboat.

Bluetooth, Harald (c. 935–c. 985): King of Denmark who converted to Christianity.

Bolzano, Bernard (1781–1848): German logical philosopher and pacifist who argued that war was counterproductive and thus should be abolished.

Boris I (c. 825–907): First ruler of Bulgaria to convert to Christianity, in 864. When a group of pagan nobles revolted against Christian rule, he slaughtered them.

Browning, John (1855–1926): American inventor; one of the most important figures in the development of semiautomatic and automatic weapons.

Buddha (a.k.a. **Siddhartha Gautama**; fl. c. 6th or 5th century B.C.): Indian prince and spiritual leader; founder of Buddhism.

Burns, Ken (b. 1953): American documentarian who produced popular series on the Civil War and World War II.

Capa, Robert (1913–1954): American war correspondent and photojournalist who took one of the most famous photographs of 20th-century war, of a Spanish Republican soldier being shot dead.

Capra, Frank (1897–1991): American film director and documentarian who made the series *Why We Fight* for the United States Signal Corps.

Cardigan, Earl of (James Thomas Brudenell; 1797–1868): English noble and military officer who commanded the Light Brigade during their famous charge.

Cassiodorus (c. 490–c. 585): Roman historian who served as a politician under King Theodoric in Italy.

Chandragupta (c. 340–293 B.C.): Indian military figure and founder of the Mauryan dynasty.

Charlemagne (a.k.a. **Carolus Magnus**; 747–814): King of the Franks and first Holy Roman emperor. He conquered a large part of western Europe and began the Christianization of Germany by conquering the Saxons.

Chirino, José (d. 1796): African Indian leader of a slave revolt in Venezuela.

Chivington, John (1821–1892): American minister and militia officer; an abolitionist and Indian fighter.

Christie, Walter (1865–1944): American inventor and arms manufacturer whose suspension system for tanks revolutionized armored warfare.

Chu Te (1886–1976): Chinese revolutionary and military figure who developed the rural guerrilla tactics usually attributed to Mao Tse-tung.

Churchill, Winston (1874–1965): English officer, war correspondent, politician, and author who was prime minister of Great Britain during World War II and authored a number of books on wars he participated in.

Cobden, Richard (1804–1865): British businessman and politician; a promoter of both free trade and pacifism.

Columbus, Christopher (1451–1506): Italian explorer who sailed to the Americas on behalf of the Spanish monarchy. His voyages opened the New World to European conquest.

Confucius (K'ung Fu-tsu; 551–479 B.C.): Chinese political advisor and social philosopher whose ideas had a dramatic impact on East Asian ideology.

Constantine I (272/3–337): Roman emperor and convert to Christianity who legalized the religion and supported it with imperial power.

Cortez, Hernan (1485–1547): Spanish commander who conquered the Aztec Empire.

Crane, Stephen (1871–1900): American journalist and novelist; author of *The Red Badge of Courage* (1894).

Creasy, Edward (1812–1878): British Whig historian and author of *Fifteen Decisive Battles of the World* (1851).

Cromwell, Oliver (1599–1658): English politician and military leader, he formed the New Model Army and, after the overthrow of the monarch, became dictator of England.

Custer, George Armstrong (1839–1876): American cavalry officer who was killed at the Battle of the Little Big Horn, popularly called Custer’s Last Stand.

Cyrus (a.k.a. **Kurush**; c. 575–530 B.C.): Founder of the Achaemenid Persian Empire.

Da Gama, Cristovao (c. 1516–1542): Son of Vasco da Gama, he led an expedition to aid the emperor of Ethiopia against Muslim invaders, in which he was killed.

Da Gama, Vasco (c. 1460–1524): Portuguese explorer who was the first to sail from Europe to India via the southern tip of Africa and the first to command European warships in the Indian Ocean.

Da Vinci, Leonardo (1452–1519): Italian scholar, engineer, and artist who designed fortifications and engines of war.

Darius I (a.k.a. **Daravavaus**; c. 549–486 B.C.): Usurper who took the throne of the Persian Empire in a revolt, though his propaganda shows him as the empire’s savior. He established the satrap system and many other elements of Persian imperial rule.

Darwin, Charles (1809–1882): English scientist and author of *The Origins of Species*, he developed modern evolutionary theory.

David (fl. c. 1000 B.C.): King of Israel; used mercenaries in his conquests and to put down revolts.

Dawidowicz, Lucy (1915–1990): American historian and author of *The War against the Jews* (1975).

De Montalvo, Garci (d. 1541): Spanish writer whose works, such as *Amadis of Gaul*, inspired the Spanish conquistadors.

Dhu Nawas (a.k.a. **Yusuf Asar Athar**; fl. c. 520): Arab Jewish king of Himyar in modern Yemen. His persecution of Christians led to an Ethiopian invasion of the peninsula.

Diamond, Jared (b. 1937): American evolutionary biologist and world historian; author of *Germes, Guns and Steel* (1998).

Diderot, Denis (1713–1784): Prominent French writer of the Enlightenment and publisher of the *Encyclopedia or Systematic Dictionary of the Sciences, Arts, and Crafts* (1751–1772).

Dix, Otto (1891–1969): German artist and veteran of World War I. His postwar paintings were a powerful indictment of war and militarism.

Douglass, Frederick (1818–1895): African American abolitionist, politician, and author.

Drews, Robert (b. 1930): American classics professor and author of *The End of the Bronze Age: Changes in Warfare and the Catastrophe Ca. 1200 B.C.* (1993).

Dunant, Henri (1828–1910): Swiss businessman and founder of the International Red Cross; key organizer of the Geneva Convention.

El Cid (a.k.a. **Rodrigo Diaz de Vivar**; c. 1040–1099): Spanish military figure who fought on both sides of the Christian-Muslim wars in Spain.

Engels, Friedrich (1820–1895): German writer who, along with Karl Marx, developed modern communist theory. Known for his idea of dialectical materialism.

Fawkes, Guy (1570–1606): English Catholic military figure and spy whose “gunpowder plot” to blow up the Protestant English Parliament in 1605 was one of the first modern terrorist conspiracies.

Festinger, Leon (1919–1989): American psychologist who developed the idea of cognitive dissonance.

Flagg, James (1877–1960): American painter and illustrator who created the poster “I Want YOU for the U.S. Army.”

Flynn, Dennis (b. 1945): American professor of economics who has written on the importance of China in the early modern global silver trade.

Forsyth, Alexander J. (1769–1843): Scottish inventor of the first workable percussion cap, one of the inventions leading to the modern rifle.

Franco, Francisco (1892–1975): Spanish military and political dictator who overthrew the Spanish Republic and established a fascist dictatorship with himself as caudillo (leader).

Freud, Sigmund (1856–1939): Austrian psychologist who explained behavior by positing an unconscious mind. His theories have been discredited.

Fulton, Robert (1765–1815): American inventor who built the first practical steamboat.

Gandhi, Mahatma (or **Mohandas**; 1869–1948): Indian political figure key in winning Indian independence, and one of the greatest pacifists of all time. He is best known for his principle of ahimsa (nonviolence).

Ganga Zumba (fl. 1670): Angolan Brazilian ruler of the Quilombo dos Palmares, one of the largest of the states formed by runaway slaves.

Gannibal, Abram Petrovich (1696–1781): Ethiopian Russian general and military engineer.

Garibaldi, Giuseppe (1807–1882): Italian revolutionary, military leader, and politician who was key in the unification of Italy.

Gat, Azar (b. 1959): Israeli military historian and author of *War in Human Civilization* (2006).

Gelawdewos (a.k.a. **Claudius**; 1521/2–1559): Emperor of Ethiopia who, with the help of Portuguese harquebusiers, defeated a Muslim invasion.

Genghis Khan (a.k.a. **Temujin**; 1162–1227): Mongol khan who founded the largest contiguous empire the world has ever known.

Giap, Vo Nguyen (b. c. 1911): Vietnamese revolutionary and military figure who successfully combined guerrilla and conventional warfare to defeat both France and the United States.

Giráldez, Arturo (b. 20th century): Spanish American professor of modern languages who has written on the importance of China in the early modern global silver trade.

Gobineau, Arthur de (1816–1882): French writer and author of *An Essay on the Inequality of the Human Races* (1853), one of the earliest works of modern racial theory.

Gordon, Charles (1833–1885): English military officer who was given command of the Chinese Ever Victorious Army during the Taiping Rebellion and also was an officer in the Egyptian army in the Sudan.

Grant, Ulysses S. (1822–1885): American military and political figure; commanded U.S. forces in the Civil War and became president of the United States.

Graves, Robert (1895–1985): English officer, war poet, and novelist; author of *Goodbye to All That*, a popular antiwar novel.

Greenburg, Joseph (1915–2001): American linguist who proposed that most American Indian languages belong to a single language family.

Gribeauval, Jean-Baptiste de (1715–1789): French artillery officer who made important improvements to cannons.

Grignard, Victor (1871–1935): French chemist and Nobel Prize winner who did poison gas research for the French army.

Grotius, Hugo (1583–1645): Dutch legal scholar; author of *On the Law of War and Peace* (1625).

Guevara, Ernesto “Che” (1928–1967): Argentine revolutionary who popularized rural guerrilla war in Latin America, despite his lack of success.

Gustavus Adolphus (1594–1632): Swedish king and military figure whose reorganization of the Swedish army influenced Western warfare.

Haber, Fritz (1868–1934): German chemist and Nobel Prize winner who did poison gas research for the German army.

Hadrian (a.k.a. **Publius Aelius Hadrianus**; 76–138): Roman general and emperor. He is best known for improving Rome’s border defenses and for building Hadrian’s Wall in Britain.

Hammurabi (a.k.a. **Hammurapi**; fl. c. 1770 B.C.): Amorite king of Babylon and founder of the Old Babylonian Empire.

Han Wu-ti (140–87 B.C.): Sixth emperor of the Chinese Han dynasty; one of the most important conquerors and military reformers of the period.

Ha-Nagid, Samuel (a.k.a. **Samuel ibn Naghrela**; 993–1056): Spanish Jewish political and military figure who was commander in chief for the Muslim ruler of Granada, a post his son Joseph also held.

Hanson, Victor Davis (b. 1953): American military historian and author of *The Western Way of War: Infantry Battle in Classical Greece* (1989) and *Carnage and Culture: Landmark Battles in the Rise of Western Power* (2001).

Hartley, Aidan (b. 1965): American journalist and war correspondent who has written on warfare in contemporary Africa.

Hegel, Georg W. F. (1770–1831): German philosopher known for his idea of the historical dialectic.

Henry the Navigator (1394–1460): Portuguese prince who masterminded Portugal’s explorations down the coast of West Africa.

Herodotus (c. 485–c. 425 B.C.): Greek historian and author of the *History*, an account of the Persian Wars.

Hesiod (fl. c. 700 B.C.): Greek poet and author of *Works and Days*, a description of life in the early Greek city-state, in which he criticized his brother Perses.

Hobbes, Thomas (1588–1679): English philosopher; wrote in *Leviathan* (1651) that because of war, life in the state of nature was “solitary, poor, nasty, brutish and short.”

Homer (fl. c. 750 B.C.): Purported author of the Greek epics the *Iliad* and the *Odyssey*.

Honda, Tadakatsu (1548–1610): Japanese general who was made a lord (daimyo) due to his military abilities.

Hoover, J. Edgar (1895–1972): American police official who served as director of the Federal Bureau of Investigation. Under his direction, the FBI took over all counterintelligence and some intelligence functions during World War II.

Howe, Julia Ward (1819–1910): American abolitionist and author who wrote the lyrics to *The Battle Hymn of the Republic*.

Hulagu Khan (1217–1275): Mongol conqueror of the Near East and founder of the Il-Khanid dynasty.

Hung Hsiu-ch’uan (1814–1864): Hakka Chinese religious and political figure who led the Taiping Rebellion.

Hypatia of Alexandria (d. 415): Pagan philosopher and mathematician; murdered by Christian monks.

Ibn Abī Tālib, ‘Alī (c. 599–661): Arab Muslim military and political figure who became the fourth caliph. He was defeated and replaced by Mu’awiyah, the first Umayyad caliph.

Ibn al-’As, ‘Amr (c. 583–664): Arab Muslim military commander who conquered Egypt for Islam.

Ibn ‘Alī, Hussein (626–680): Arab Muslim political and military figure, he led a Shi’ite revolt against the Umayyad and was defeated and killed.

Ibn al-Walīd, Khālīd (592–642): Arab Muslim military figure who won many battles during the rise of Islam.

Ismail I (1487–1525): Shi’ite Muslim from northwestern Iran who became the first shah, or ruler, of the Safavid Persian Empire.

Ivan IV (a.k.a. Ivan the Terrible; 1530–1584): Russian political and military figure who became the first czar of the Russian empire.

Jagger, Charles Sergeant (1885–1934): British sculptor who served as an officer in World War I. He is best known as a creator of war memorials.

Jahan (1592–1666): Mughal shah who won wars against the Portuguese and Rajputs and built the Taj Mahal.

Jaspers, Karl (1883–1969): German philosopher who coined the term “axial age.”

Jesus of Nazareth (c. 6–35): Jewish religious figure; founder of Christianity.

Jogaila (a.k.a. **Vladislav II Jagiello**; c. 1362–1434): First Christian ruler of Lithuania; laid the foundation for the kingdom of Poland-Lithuania, which dominated Eastern Europe for centuries.

John I (1167–1216): King of England; forced by his barons to sign the Magna Carta.

John Hyrcanus I (c. 175–104 B.C.): High priest and ruler of Judah who conquered neighboring Samaria and Idumaea and allied Judah to the Romans.

Joselowicz, Berek (1764–1809): Jewish Polish cavalry commander, he raised an all-Jewish hussar regiment during the 1794 revolt and served in Napoleon’s Polish forces.

Josephus (Flavius Josephus); 37/8–c. 100): Jewish Roman military commander and author of *The Jewish War* (c. 75).

Julian II (c. 1443–1513): Italian pope who fought in armor and founded the Swiss Guards.

Julius Caesar (100–44 B.C.): Roman general and politician who took control of the Roman republic and laid the groundwork for the Roman Empire.

Jung, Carl (1875–1961): German psychologist. His theories have been discredited.

Kader, Abdel (1808–1883): Algerian military and political figure who fought the French occupation of Algeria.

Kalakaua, David (1836–1891): Hawaiian noble, politician, and military officer who was elected king of Hawaii.

Kamehameha I (c. 1738–1819): Hawaiian military and political figure who unified the islands and founded the Kingdom of Hawaii.

K'ang-hsi (1654–1722): Chinese emperor of the Ch'ing dynasty, he defeated the Portuguese, took Taiwan, and expanded Chinese control to the northwest.

Kautilya (fl. 300 B.C.): Indian author of the political-military treatise *Arthashastra*, he is traditionally identified with Chanaka, an adviser to King Chandragupta (c. 340–293 B.C.), who was founder of the Mauryan Empire.

Keegan, John (b. 1934): British military historian and author of *The Face of Battle* (1976) and *A History of War* (1993).

Keeley, Lawrence (b. 20th century): Professor of anthropology at the University of Illinois at Chicago and author of *War before Civilization* (1996).

Kidd, William (c. 1645–1701): Scottish privateer who, despite having a letter of marque from the king of England, was hanged as a pirate.

Kiefer, Anselm (b. 1945): German artist who has produced antiwar sculptures dealing with the allied bombing of Germany during World War II.

Kipling, Rudyard (1865–1936): English author and poet whose works illustrated 19th-century English imperialism.

Kosciusko, Thaddeus (1746–1817): Polish military and political figure who fought in the American Revolution and led an unsuccessful uprising against Russia.

Krupp, Alfred (1812–1887): German businessman who built his family's steel company into one of the leading arms manufacturers in the world.

Kubilai Khan (1215–1294): The last ruler of the unified Mongol Empire and the first emperor of the Chinese Yüan dynasty.

Kuo Hsing-Yeh (a.k.a. **Coxinga**; **Cheng Ch'eng Kung**; 1624–1662): Chinese Ming dynasty military figure who drove the Dutch from Taiwan and established an anti-Ch'ing stronghold there.

Ladd, William (1778–1841): American abolitionist and pacifist who organized the American Peace Society in 1828.

Lafayette, Marquis de (Gibert du Motier) (1757–1834): French aristocrat, revolutionary, and political leader, he fought in the American and French revolutions.

Lamar, Hedy (1913–2000): Austrian American film actress and coinventor, with composer George Antheil (1900–1959), of a frequency-hopping spread spectrum device.

Lavoisier, Antoine (1743–1794): French scientist called the Father of Modern Chemistry; his work made possible modern explosives.

Lawrence, T. E. (a.k.a. **Lawrence of Arabia**; 1885–1935): British military officer who helped lead the Arab revolt against the Ottomans in World War I and was an early theoretician of guerrilla warfare.

Le Tellier, Michel (1603–1685): French politician who, as secretary of state for military affairs, introduced military and political reforms that transformed the French army. His son, the Marquis de Louvois (1641–1691), continued and expanded his work.

Lemkin, Raphael (1900–1959): Polish jurist who developed the modern legal basis for war crimes and coined the term “genocide.”

Lennon, John (1940–1980): English musician, songwriter, and antiwar activist who wrote “Give Peace a Chance.”

Leopold II (1835–1909): King of Belgium; known for his conquest, and cruel exploitation, of the Congo.

Lind, James (1716–1794): English naval surgeon who discovered the cause of scurvy.

Lipsius, Justus (1547–1606): Flemish scholar who edited a number of classical military texts and whose teaching influenced modern military theory.

Louis XIV (1638–1715): French king whose military victories and reforms made France the main power in Europe for more than a century.

Loyola, Ignatius (1491–1556): Spanish soldier and founder of the Society of Jesus (Jesuits), he was a leader in the Counter-Reformation.

Lugalzagesi (fl. c. 2280 B.C.): Sumerian king who first united Mesopotamia into a single empire.

Luther, Martin (1483–1546): German theologian whose writings began the Protestant Reformation.

Lycurgus (fl. c. 750 B.C.): Purported founder of Sparta’s constitution and military training system (*agoge*). His role, and even his existence, has been doubted.

Machiavelli, Niccolo (1469–1527): Italian diplomat and scholar, he was the author of *The Prince* and *Discourses on Livy*, influential political and military works.

Mahan, Alfred Thayer (1840–1914): American naval officer and military theorist; author of *Influence of Sea Power upon History* (1890).

Mannlicher, Ferdinand (1848–1904): German inventor of the magazine clip, which made possible the semiautomatic gun.

Mao Tse-tung (1893–1976): Chinese revolutionary leader and writer on guerrilla warfare.

Marco Polo (1254–1324): Venetian merchant who traveled from Italy through the Mongol Empire, visiting China and Southeast Asia.

Marighella, Carlos (1911–1969): Brazilian revolutionary and author of the *Minimanual of the Urban Guerrilla* (1969).

Marius, Gaius (c. 157–86 B.C.): Roman military commander and politician. The Marian reform, which transformed the Roman army, was attributed to him.

Marx, Karl (1818–1883): German revolutionary theorist and founder of the modern communist movement.

Maurice of Nassau (1567–1625): Dutch political and military figure whose organization and training of the Dutch army revolutionized modern warfare.

Maxim, Hiram (1840–1916): American British inventor of the modern machine gun.

Mazurkewicz, Josephine (1784–1896): French military surgeon who served both in the Napoleonic and Crimean wars.

McCarthy, Joseph (1908–1957): United States senator from Wisconsin whose investigations into communists in the government and military became a byword for political persecution.

McCrae, John (1872–1918): Canadian officer and military surgeon who wrote one of the most famous war poems of the 20th century, “In Flanders Fields.” He died of pneumonia while commanding a field hospital.

McKinley, William (1843–1901): President of the United States; assassinated by an anarchist.

McNamara, Robert (b. 1916): American statistician, businessman, and politician who developed the theory behind firebombing during World War II and was United States secretary of state during the Vietnam War.

McNeil, William H. (b. 1917): Canadian American historian and author of *The Pursuit of Power: Technology, Armed Force, and Society since A.D. 1000* (1982).

Moore, Robin (1925–2008), and **Barry Sadler** (1940–1989): American cowriters of the popular song “The Green Berets,” which became an unofficial anthem for many special forces units around the world.

Morillo, Stephen (b. 20th century): British American military historian and coauthor of *War in World History: Society, Technology and War from Ancient Times to the Present* (2008).

Mo-tzu (a.k.a. **Mo Ti**; c. 470–391 B.C.): Chinese philosopher known for his teachings of universal love and pacifism.

Muhammad (c. 570–632): Arabian political, military, and religious figure; founder of Islam.

Murad IV (1612–1640): Ottoman Turkish sultan who stabilized the empire and won a series of victories against the Safavid Persians.

Napoleon I (a.k.a. **Napoleon Bonaparte**; 1769–1821): French military and political figure who created a French empire that dominated Europe for a decade. His campaigns and military theories were very influential in the 19th century.

Narmer (fl. c. 3100 B.C.): Subject of the Narmer Palette, which shows a king subduing enemies. Considered to be the unifier of Egypt and first pharaoh.

Naue, Julius (1833–1907): German archaeologist and art historian who categorized Bronze Age swords. The Naue II, or tongue-hilt, sword is named after him.

Nebuchadnezzar II (a.k.a. **Nabu-kudurri-usur**; c. 630–562 B.C.): King of the Neo-Babylonian Empire who conquered Judah and deported its king and aristocracy to Babylon.

Nehemiah (fl. c. 5th or 4th century B.C.): Jewish Persian official placed in charge of Judah by the Persian king, he rebuilt the walls of Jerusalem.

Nelson, Horatio (1758–1805): British naval officer who revolutionized naval tactics.

Nietzsche, Friedrich (1844–1900): German philosopher known for his ideas of the superman and the will to power.

Nightingale, Florence (1820–1910): English nurse, author, and statistician who founded modern military nursing.

Nixon, Richard (1913–1994): President of the United States during the Vietnam War.

Nordenfeldt, Thorsten (1842–1920): Swedish inventor and businessman; founded an arms company that designed antiaircraft guns and submarines.

Nostradamus (a.k.a. **Michel de Nostredame**; 1503–1566): French astrologer and poet whose prophecies were popularized by the Nazi propaganda ministry.

Ono, Yoko (b. 1933): Japanese American artist and pacifist who produced much conceptual antiwar art, both with her husband John Lennon and after his death.

Ötzi (fl. c. 3300 B.C.): Nickname of a man whose body was found in the Ötztal Alps in 1991. His remains were frozen, which allowed the reconstruction of his violent death.

Owen (1893–1918): English officer and war poet of World War I who wrote “Dulce et Decorum Est,” one of the most powerful war poems of the 20th century. He was killed in action.

Palmerantz, Helge (1842–1880): Swedish inventor and businessman. He designed an automatic gun, originally for antisubmarine use, that was key in antiaircraft gun design.

Pan Ch’ao (32–102): Han Chinese general who conquered the Tarim Basin in Central Asia and campaigned as far west as the Caspian Sea.

Parker, Ely (a.k.a. **Donchogawa**; 1828–1895): Seneca Indian American military officer and politician. He served as adjutant to Ulysses S. Grant and was present at Lee’s surrender. He rose to the rank of Brigadier General and headed the Bureau of Indian Affairs.

Parker, Geoffrey (b. 1943): British American military historian and author of *The Military Revolution: Military Innovation and the Rise of the West, 1500–1800* (1988).

Parsons, Charles Algernon (1854–1931): Naval engineer who designed the steam turbine engine.

Parvataka (fl. c. 330 B.C.): King of the Indian kingdom of Paurava who fought Alexander the Great in 326 B.C. at the Battle of the Hydaspes River.

Peel, Robert (1788–1850): English politician who formed the first modern police force in London.

Peisistratus (c. 590–528/7 B.C.): Tyrant who ruled Athens with the support of the hoplite class at the beginning of the Peloponnesian War.

Pericles (c. 495–429 B.C.): Greek politician who dominated the Athenian democracy through the elected post of general (*strategos*).

Peter I (1672–1725): Russian czar who modernized the Russian military and state.

Picasso, Pablo (1881–1973): Spanish French artist whose painting *Guernica* (1937) became an icon of the horrors of modern war.

Pinkerton, Allan (1819–1884): Scottish American detective and head of the U.S. intelligence service during the Civil War. He developed human intelligence techniques such as shadowing and undercover work.

Pizarro, Francisco (c. 1471–1541): Spanish commander who conquered the Incan Empire.

Plato (c. 428/7–348/7 B.C.): Greek philosopher and student of Socrates. An aristocrat, he was an opponent of democracy.

Plutarch (c. 45–c. 120): Greco-Roman historian and biographer.

Pol Pot (a.k.a. **Saloth Sar**; 1925–1998): Cambodian revolutionary leader whose short rule of Cambodia (1975–1979) led to the death of more than a million people.

Polybius (c. 203–120 B.C.): Greek politician who was taken to Rome as a hostage and authored a history of the rise of the Roman Empire.

Reagan, Ronald (1911–2004): President of the United States at the end of the Cold War.

Remarque, Erich Maria (1898–1970): German veteran of World War I and author of the classic antiwar novel *All Quiet on the Western Front* (1928).

Richard the Lion-Heart (1157–1199): King of England and Crusader.

Richter, Gerhard (b. 1932): German artist who painted a number of works dealing with the Allied bombing of Germany in World War II.

Rockwell, Norman (1894–1978): American painter and illustrator.

Rosenthal, Joe (1911–2006): American war correspondent and photojournalist who took “Raising the Flag of Mount Suribachi.”

Rousseau, Jean-Jacques (1712–1788): French philosopher known for his idea of the “noble savage.”

Saladin (a.k.a. **Yusuf ibn Ayyub**; 1138–1193): Kurdish Muslim military and political figure. He drove the Crusaders out of Palestine and founded the Ayyubid sultanate.

Sargon of Akkad (fl. c. 2250 B.C.): King who founded the Akkadian Empire, between Elam (modern Iran) and the Mediterranean. Pioneered the use of the professional army and composite bow.

Sassoon, Siegfried (1886–1967): English officer and one of the war poets of World War I, he was highly decorated but wrote “A Soldier’s Declaration” when he refused to return to the front. Rather than being court-martialed, he was treated as shell-shocked.

Sawma, Rabban (c. 1220–1294): Turkish Christian monk, born in Beijing, who traveled west through the Mongol Empire. He was sent as an ambassador to the pope, visiting Constantinople, Italy, and France.

Shaka Zulu (1787–1828): Zulu military leader and politician.

Shakespeare, William (1564–1616): English poet and playwright.

Shang Yang (d. 338 B.C.): Minister in the state of Ch’in whose military and political reforms, following the legalist tradition, led to Ch’in victories and the unification of China.

Shay, Jonathan (b. 1941): American psychologist and author of *Achilles in Vietnam: Combat Trauma and the Undoing of Character*.

Shih Huang-ti (259–210 B.C.): Military figure who unified China, founded the Ch’in dynasty, and became the first Chinese emperor.

Shirley, Anthony (1565–1635), and **Robert Shirley** (c. 1581–1628): Two English brothers—merchants and adventurers—who trained the Safavid Persian army in modern European warfare.

Shostakovich, Dmitri (1906–1975): Russian composer who composed both patriotic (“Song of the Red Army,” 1943) and antiwar (“Supporters of Peace March,” 1950) orchestral pieces.

Siemienowicz, Kazimierz (c. 1600–c. 1651): Polish Lithuanian artillery general, whose book *The Complete Art of Artillery* (1650) was used as a basic text for centuries.

Smith, Adam (1723–1790): Scottish scholar whose book *The Wealth of Nations* (1776) laid the foundations of modern economic theory.

Smith, Joseph (1805–1844): American religious figure; founder of the Latter Day Saints (Mormons).

Socrates (c. 470–399 B.C.): Athenian thinker who is considered the founder of Greek philosophy.

Solon (c. 630–c. 560 B.C.): Greek statesman whose constitutional reforms first gave power to the Athenian hoplite class.

Ssu-ma Ch'ien (c. 145–86 B.C.): Chinese official in the Han dynasty; author of *Records of the Grand Historian*, an important source for Chinese history.

Stalin, Joseph (1878–1953): Russian revolutionary and political figure who was dictator of the Soviet Union during World War II.

Stendhal (a.k.a. **Henri-Marie Beyle**; 1783–1842): Author of *The Charterhouse of Parma* (1839), which featured a graphic description of the Battle of Waterloo.

Stephen I (c. 970–1038): First Christian king of Hungary, he was canonized as a saint.

Stirling, David (1915–1990): British officer who organized the Special Air Service, a special forces unit during World War II.

Sun Bin (d. 316 B.C.): Author of a Chinese military classic, which was rediscovered in a tomb in 1972.

Sun Tzu (a.k.a. **Sun Wu**; fl c. 525 B.C.): Author of the Chinese military classic *The Art of War*.

Sun Yat-sen (1866–1925): Chinese revolutionary and politician; helped organize the revolution that overthrew the Ch'ing dynasty.

T'ai Tsung (599–649): Chinese military commander who helped his father overthrow the Sui dynasty and become first emperor of the Tang dynasty. T'ai Tsung became the second Tang emperor and conquered an enormous area of East Asia.

Tamurlane (a.k.a. **Timur i-lang**; 1336–1405): Turko-Mongol military and political figure who tried, unsuccessfully, to restore the unified Mongol Empire.

Tandy, David (b. 20th century): Classics professor and author of *Warriors into Traders: The Power of the Market in Early Greece* (1997).

Tennyson, Lord Alfred (1809–1892): English poet whose *Charge of the Light Brigade* became one of the best-known poems of the 19th century.

Theodoric (454–526): King of the Ostrogoths and ruler of Italy, he was both a German king and a literate and cultured Roman.

Thucydides (c. 460–c. 395 B.C.): Athenian general and historian; author of the *History of the Peloponnesian War*, the model for subsequent Greek and Roman historical works.

Tiglath-Pileser III (r. 745–727 B.C.): Assyrian king and conqueror who established the Assyrian professional army and founded the Neo-Assyrian Empire.

Tolstoy, Leo (1828–1910): Russian writer, author of *War and Peace* (1865), and influential pacifist.

Trotsky, Leon (1879–1940): Russian revolutionary who organized and led the Red Army, which maintained Bolshevik power during the Russian Civil War. He was murdered by a Soviet agent in Mexico City.

Truman, Harry S (1884–1972): President of the United States during the Korean War and the beginning of the Cold War.

Tseng Kuo-fan (1811–1872): Han Chinese official, scholar, and military leader, he helped suppress the Taiping Rebellion.

Turney-High, Harry H. (1899–1982): American anthropologist and author of *Primitive War* (1949).

Umar (a.k.a. **Omar**; c. 581–644): Arab Muslim political and military figure who became the second caliph. Under his rule, the Sassanid Persian Empire and most of the Byzantine Empire were conquered for Islam.

Upton, Emory (1839–1881): American military officer and theorist who took a world trip to report on various military forces.

Urban II (1042–1099): Pope who launched the First Crusade and developed the idea of plenary indulgence to encourage participation in it.

Ut, Huynh Cong (b. 1951): Vietnamese American war correspondent and photojournalist who took a famous picture of a young girl suffering from a napalm bomb attack.

Vallaster, Josef (1910–1943): Austrian farmer who joined the Nazi SS and served in several extermination camps. He was in charge of gassing tens of thousands of Jews at Sobibor, where he was killed in an inmate uprising. His name was placed on a war memorial in his village as “killed in action” but was later removed by the mayor.

Van de Mieroop, Marc (b. 20th century): American specialist in Near Eastern history; author of *The Ancient Mesopotamian City* (1997).

Vauban, Sebastien de (1633–1707): French military engineer who revolutionized siege warfare.

Vernon, William (1684–1757): English naval officer and politician who helped reform the British navy. Mount Vernon in Virginia is named for him.

Verulanus, Johannes Sulpitius (fl. 15th century): Early German printer who published some of the earliest printed military works.

Von Clausewitz, Carl (1780–1831): Prussian officer and military theorist; author of *On War* (1832).

Von Dreyse, Johann (1787–1867): German inventor of the first practical bolt-action rifle, the needle gun.

Von Grimmelshausen, Hans Jakob (1621–1676): German writer and author of *Simplicius Simplicissimus* (1669), a humorous novel set in the Thirty Years' War.

Von Hippel, Theodor (b. 19th century): German officer who helped organize the Brandenburgers, one of the first special forces units of World War II.

Von Humboldt, Alexander (1767–1835): German scientist and explorer; one of the founders of modern biology.

Von Lettow-Vorbeck, Paul (1870–1964): German officer who led a very successful guerrilla-type campaign in East Africa during World War I.

Von Wallenstein, Albrecht (1583–1634): German Catholic general and politician who commanded the armies of the Holy Roman Empire during the Thirty Years' War.

Walker, Mary (1832–1919): American military doctor awarded the Medal of Honor for her service in the Civil War.

Wang Fu (c. 78–163): Han dynasty scholar and author of *Comments of a Recluse* (*Ch'ien-fu lun*), which recommended the disciplining of unruly soldiers.

Ward, Frederick Townsend (1831–1862): American Chinese sailor and mercenary who, as a Chinese citizen and official, trained and led the Ever Victorious Army, the first modern Chinese military unit.

Wei Yüan (1794–1856): Chinese scholar and historian; author of *Illustrated Treatise on the Maritime Kingdoms* (1844), the first explanation of Western-style warfare in Chinese.

Wemp, Daniel (b. c. 1980): Papua New Guinean of the Handa clan; subject of the article “Vengeance is Ours” by Jared Diamond.

Wen (a.k.a. **Yang Jian**; 541–604): Chinese military and political figure who became the first emperor of the Sui dynasty. He converted to Buddhism.

Wilhelm II (1859–1941): King of Prussia and emperor (kaiser) of the German Empire during World War I.

Wilson, Woodrow (1856–1924): President of the United States during World War I.

Wingate, Orde (1903–1944): British officer and a key figure in the development of modern special forces.

Wright, (Philip) Quincy (1890–1970): American political scientist and author of *A Study of War* (1942; revised and abridged edition, 1964).

Wright, Wilbur (1867–1912), and **Orville Wright** (1871–1948): American brothers who developed the first practical heavier-than-air craft, or airplane.

Wu Ling (c. 326–299 B.C.): King of Chao, one of a number of warring Chinese kingdoms. He instituted a military reform, introducing the methods of steppe warfare to his army.

Xenophon (c. 430–c. 355 B.C.): Aristocratic Athenian general, historian, and writer of military works. He was a student of Socrates.

Yang Ti (569–618): Chinese Buddhist, the younger son of emperor Wen, and successful general, who maneuvered his brother out of power and the murdered his father to become emperor.

Yuan Shih-kai (1859–1916): Chinese military and political figure. He commanded the imperial Chinese army; made himself the president of the Chinese republic; and shortly before his death, proclaimed himself emperor of China.

Zaharoff, Basil (1849–1936): Greek British businessman and arms dealer who became a popular archetype for the international arms trade.

Zarathustra (a.k.a. **Zoroaster**; fl. c. 600 B.C.; sometimes dated to c. 1000 B.C. or earlier): Persian prophet and founder of Zoroastrianism.

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- Andrew, Christopher, and Vasili Mitrokhin. *The Sword and the Shield: The Mitrokhin Archive and the Secret History of the KGB*. New York: Basic Books, 1999. Books by retired spies should always be read with a grain of salt, but this is a fascinating, and disturbing, account of the success of Soviet spying in the West, as well as its ultimate failure due to a closed mind-set among Russia's leaders.
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Campbell, Brian. *War and Society in Imperial Rome*. London: Routledge, 2002. This is a short, highly readable, scholarly study putting the Roman military in its social, political, and economic context.

Chambers, James. *The Devil's Horsemen: The Mongol Invasion of Europe*. New York: Atheneum, 1979. The classic work on Mongol military history, it is still one of the best introductions to the subject.

Chase, Kenneth. *Firearms: A Global History to 1700*. Cambridge: Cambridge University Press, 2003. A good introduction to the subject from a world historical perspective, it focuses not only on the Chinese invention, but also on the European improvement, of gunpowder.

Cipolla, Carlo. *Guns, Sails and Empire: Technological Innovations and the Early Phases of European Expansion, 1400–1700*. New York: Minerva Press, 1965. Still a classic, this is a groundbreaking analysis of the role of technology in European naval conquests. It is less useful on the non-European reactions to the new innovations, but still very valuable.

Citino, Robert. *From Blitzkrieg to Desert Storm: The Evolution of Operational Warfare*. Lawrence: University of Kansas Press, 2004. While the book is long and detailed, it is a good follow-up to this course, as it extends beyond our range to look at warfare in the second half of the 20th century.

Clayton, Anthony. *Frontiersmen: Warfare in Africa since 1950*. London: UCL Press, 1999. While its theory about modern African war has been criticized, this is a good survey of warfare on the continent, especially the conflicts surrounding decolonization.

Contamine, Phillippe. *War in the Middle Ages*. Translated by Michael Jones. New York: Basil Blackwell, 1984. While focused on western Europe, and with a difficult academic style, this is classic and full of valuable detail.

Cook, Weston. *The Hundred Years War for Morocco: Gunpowder and the Military Revolution in the Early Modern Muslim World*. Boulder, CO: Westview Press, 1994. This book is a rare exploration of the impact of the 16th-century military revolution in a non-European region—in this case, Muslim North Africa.

Corvisier, Andre. *Armies and Societies in Europe, 1494–1789*. Translated by Abigail T. Siddall. Bloomington: Indiana University Press, 1979. This translation of a French classic of military history is full of detail and analysis.

Cotterell, Arthur. *The Chariot: The Astounding Rise and Fall of the World's First War Machine*. Woodstock, NY: Overlook, 2005. More scholarly than its breathless title indicates, this book suffers somewhat from disorganization and a lack of thoroughness but is still a valuable read, especially for its focus on India and China.

Crone, Patricia. "The Early Islamic World." In *War and Society in the Ancient and Medieval Worlds*, edited by K. Raaflaub and N. Rosenstein, 309–332. Cambridge, MA: Harvard University Press, 1999. By far the best short introduction to the Islamic military available; a must-read for anyone interested in the subject.

———. *From Arabian Tribes to Islamic Empire: Army, State and Society in the Near East c. 600–850*. Burlington, VT: Ashgate, 2008. A very expensive book, best checked out of the library, this collection of articles by one of the leading, and most controversial, scholars of Islam working today focuses on the Muslim military during its rise.

Davies, Brian L. "The Development of Russian Military Power, 1453–1815." In *European Warfare, 1453–1815*, edited by Jeremy Black. New York: St. Martin's Press, 1999. An in-depth analysis of the growth of the Russian gunpowder empire, this chapter dispels some misconceptions in the process.

Dawidowicz, Lucy. *The War against the Jews, 1933–1945*. New York: Holt, Rinehart and Wilson, 1975. While neither the most recent nor the most comprehensive work on the Holocaust, this is an excellent starting point on Nazi anti-Semitic ideology and its genocidal results, emphasizing its militaristic aspects.

Dawley, Alan. *Changing the World: American Progressives in War and Revolution*. Princeton, NJ: Princeton University Press, 2003. This account of the history of American progressives during World War I and its aftermath is unique for Dawley's fusion of social and international history.

De Pauw, Linda Grant. *Battle Cries and Lullabies: Women in War from Prehistory to the Present*. Norman: University of Oklahoma, 2000. While not reliable for the ancient period, this is a highly readable introduction to women in combat. The sections on the 18th and 19th centuries are quite good.

DeVries, Kelly. *Medieval Military Technology*. Orchard Park, NY: Broadview, 1992. A great introduction to the often confusing details of armor, weapons, and fortifications in the Middle Ages. It is Eurocentric, however, and weak on some areas, such as Greek fire.

DiMarco, Louis A. *War Horse: A History of the Military Horse and Rider*. Yardley, PA: Westholme, 2008. While lacking illustration, this is a fine, up-to-date introduction to the subject of cavalry, ranging from antiquity to the present. DiMarco's book is very readable and full of interesting facts and stories.

Drews, Robert. *Early Riders: The Beginnings of Mounted Warfare in Asia and Europe*. New York: Routledge, 2004. The best book on the subject of the beginnings of cavalry; the author argues strongly for a 9th-century date and its origins in the Near East, not the steppes.

———. *The End of the Bronze Age: Changes in Warfare and the Catastrophe Ca. 1200 B.C.* Princeton, NJ: Princeton University Press, 1993. Not only is this the classic modern study of the collapse of the Bronze Age palace empires, it is also a persuasive argument for the importance of the sword revolution.

Duffy, Christopher. *The Military Experience in the Age of Reason*. New York: Atheneum, 1987. This book is the best introduction to the military culture of the 18th century, with a good contrast between the lives of private soldiers and officers in the regimental society.

Dzengseo. *The Diary of a Manchu Soldier in Seventeenth-Century China*. Translated by Nicola Di Cosmo. New York: Routledge, 2006. The author of this diary, which gives a rare eyewitness look at an early modern non-Western army, was an officer in the Manchurian forces fighting in southwestern China in the 1670s and 1680s.

Elliot, J. H. *Empires of the Atlantic World*. New Haven, CT: Yale University Press, 2006. A good study of the contrasting methods used by the Spanish and British in their colonization of the New World.

Enloe, Cynthia. *Ethnic Soldiers: State Security in Divided Societies*. Athens: University of Georgia Press, 1980. A theoretical, rather than historical, approach and concerned largely with the 20th century, it is nevertheless one of the few works that cogently discuss the role of ethnicity in the 19th-century military.

Farris, William W. *Heavenly Warriors: The Evolution of Japan's Military, 500–1300*. Cambridge, MA: Harvard University Press, 1992. While not focused specifically on bushido, this is a good introduction to the origins of the samurai and their way of warfare.

Farwell, Byron. *Mr. Kipling's Army: All the Queen's Men*. New York: W. W. Norton, 1981. Short and highly readable, this is one of the best introductions to the culture of a 19th-century army and the regimental system.

Ferguson, Nial. *The Cash Nexus: Money and Power in the Modern World, 1700–2000*. New York: Basic Books, 2000. This book is a superb analysis of the role of warfare in the development of modern financial institutions.

Ferguson, R. Brian. "A Paradigm for the Study of War and Society." In *War and Society in the Ancient and Medieval Worlds*, edited by K. Raaflaub and N. Rosenstein. Cambridge, MA: Harvard University Press, 1999. This essay is written in the context of ancient and medieval warfare. It is very valuable, however, because of the global reach of the volume and especially because of the way the author, an anthropologist, works the evidence of premodern warfare from around the world into a useful theoretical framework.

Ferill, Arthur. *The Origins of War*. London: Westview Press, 1985. Somewhat dated but still valuable, an argument for the Neolithic origins of war. Short and readable, it is a good place to start for the basic evidence and arguments.

Forsyth, James. *A History of the Peoples of Siberia*. Cambridge: Cambridge University Press, 1994. While primarily focused on the Russian invasion of the region, this work takes a rare look at warfare among the north Asian peoples and is a very good study of the military aspects of the fur trade.

French, Shannon E. *The Code of the Warrior: Exploring Warrior Values Past and Present*. Lanham, MD: Rowman & Littlefield, 2003. The author both analyzes and advocates for warrior codes, such as chivalry and bushido; furthermore, she compares such systems through history and around the world.

Fukui, K., and D. Turton. *Warfare among East African Herders*. Osaka, Japan: National Museum of Ethnology, 1979. While an anthropological study, rather than a military one, this collection of articles focuses on a little-discussed topic.

Fussell, Paul. *The Great War and Modern Memory*. New York: Oxford University Press, 1975. Quite possibly the best book ever written on culture and war, this is a must-read for military historians, especially of the 20th century.

Gabriel, Richard. *The Culture of War: Invention and Early Development*. New York: Greenwood Press, 1990. This is an integrated study of war from its origins through the Bronze Age. While it does not cover East Asia, it is wide-ranging in the Western core.

Garlan, Yvon. *War in the Ancient World: A Social History*. Translated by Janet Lloyd. New York: W. W. Norton, 1975. An older (and Eurocentric) study, this is nevertheless a classic work and valuable for the relation of war with ancient social structure.

Gat, Azar. *War in Human Civilization*. Oxford: Oxford University Press, 2008. Not a military history, but a well-argued thesis on the interaction of war and culture, it is a must-read for military historians.

Gilmartin, John. "The Cutting Edge: An Analysis of the Spanish Invasion and Overthrow of the Incan Empire, 1532–1539." In *Transatlantic Encounters*, edited by K. Andrien and R. Adorno. Berkeley: University of California Press, 1992. This chapter remains the best short discussion in English of the role of military technology in the conquest of Peru.

———. *Gunpowder and Galleys*. Cambridge: Cambridge University Press, 1974. While focused mainly on the 16th century, this is one of the few books that discuss the impact of the gun on naval warfare before the development of the galleon.

Gnirs, Andrea M. "Ancient Egypt." In *War and Society in the Ancient and Medieval Worlds*, edited by K. Raaflaub and N. Rosenstein, 71–104. Cambridge, MA: Harvard University Press, 1999. This chapter is a study of the organization of the Egyptian army in the New Kingdom and very useful for understanding (non-Greek) armies of the period. There is a particularly good discussion of the chariot forces.

Gommans, Jos. *Mughal Warfare: Indian Frontiers and Highroads to Empire, 1500–1700*. New York: Routledge, 2002. One of the few books on premodern South Asian warfare published outside India, this excellent (but expensive) book will repay a trip to the local university library.

Gommans, Jos, and Dirk Kolff, eds. *Warfare and Weaponry in South Asia, 1000–1800*. New York: Oxford University Press, 2001. The military history of premodern India is poorly served, and it is especially difficult to find works published outside of India. This is beginning to change, as evidenced by this scholarly anthology.

Graff, David A. *Medieval Chinese Warfare, 300–900*. New York: Routledge, 2002. A fine survey on a subject rarely written about (at least in English), although there is more focus on logistics and administration than weapons and tactics.

Gunaratna, Rohan. *Inside Al Qaeda: Global Network of Terror*. New York: Berkley Books, 2003. A fascinating analysis of the structure of the al-Qaeda terrorist organization, the model asymmetric military force of the last 20 years.

Habeck, Mary R. *Storm of Steel: The Development of Armor Doctrine in Germany and the Soviet Union, 1919–1939*. Ithaca, NY: Cornell University Press, 2003. Based on archival research, including previously secret Soviet documents, this is an excellent analysis of the theoretical and experimental work that led to the blitzkrieg.

Hale, John. *War and Society in Renaissance Europe*. Baltimore, MD: Johns Hopkins University Press, 1986. This is an excellent study of the interaction of the military and the Renaissance, with a good balance of the influence in both directions.

Hanson, Victor Davis. *The Western Way of War: Infantry Battle in Classical Greece*. London: John Curtis/Hodder & Stoughton, 1989. While his thesis may be problematic, this is the very best book on the mechanics of Greek hoplite warfare.

Hassig, Ross. *Aztec Warfare: Imperial Expansion and Political Control*. Norman: University of Oklahoma Press, 1988. A comprehensive and compelling presentation of the history of the dramatic Aztec conquest of central Mexico.

———. *War and Society in Ancient Mesoamerica*. Berkeley: University of California Press, 1992. This study, by the leading expert in the field, takes a long-term and paradigmatic approach and does not confine itself to Aztec warfare in the contact period.

Head, Duncan. *The Achaemenid Persian Army*. Stockport, UK: Montvert, 1992. While not an academic study, this is one of the few comprehensive looks at the Persian army in this critical period.

Headrick, Daniel. *The Tools of Empire: Technology and European Imperialism in the Nineteenth Century*. New York: Oxford University Press, 1981. The book argues that technology did not just provide the means for European expansion, but the motivation as well.

Helgeland, John. "Christians and the Roman Army A.D. 173–337." *Church History* 43, no. 2 (June 1974): 149–163. While not a military history, one of the few studies that seriously considers the importance of Christians in the imperial Roman army before its full Christianization in the 4th century.

Hildinger, Erik. *Warriors of the Steppe: A Military History of Central Asia, 500 B.C. to A.D. 1700*. New York: Sarpedon, 1997. This book is a good introduction to the basics of steppe warfare; it emphasizes continuity, thus sometimes missing some important changes.

Housely, Norman. *Religious Warfare in Europe, 1400–1536*. Oxford: Oxford University Press, 2002. This book not only links 16th-century European religious war to its antecedents in the Crusading movement, but despite its title, it is also global in its approach.

Howard, Michael. *War and the Liberal Conscience*. New York: Columbia University Press, 2008. This is the second edition of a classic history of liberal pacifist and antiwar movements and ideology.

Hui, Victoria Tin-bor. *War and State Formation in Ancient China and Early Modern Europe*. New York: Cambridge University Press, 2005. This work challenges the notion that the nation-state is solely a European phenomenon. The author's view is shared by Azar Gat and extended in his *War in Human Civilization*.

Hyland, Ann. *The Horse in the Ancient World*. Westport, CT: Praeger, 2003. A solid popular survey of the horse in antiquity, this work is full of practical insights and draws on non-European sources.

Imber, Colin. *The Ottoman Empire, 1300–1650: The Structure of Power*. New York: Palgrave Macmillan, 2002. A straightforward political history, it covers the Ottoman religious warfare not only in Europe but globally as well.

Johnson, Curtis. *Redeeming America: Evangelicals and the Road to Civil War*. Chicago: I. R. Dee, 1994. This book focuses on theological movements in antebellum America and is a good introduction to militant ideas within American Protestantism.

Kang, Sa-Moon. *Divine War in the Old Testament and the Ancient Near East*. New York: W. de Gruyter, 1989. While technical, this is an excellent study of the origins of religious warfare, with much valuable detail.

Karsh, Efraim. *Islamic Imperialism*. New Haven, CT: Yale University Press, 2006. This study argues that jihad has always been an integral part of Islam. Not all will agree with its conclusions, but it is a valuable survey of the subject.

Keegan, John. *A History of Warfare*. New York: Vintage, 1994. Less of a historical survey than an argument for the primacy of culture in warfare. While still a necessary read, its approach is appearing more and more dated.

———. *Intelligence in War*. New York: Vintage, 2004. Focusing on the effectiveness of intelligence gathering in war, this is one of the best introductions to the subject.

Keeley, Lawrence. *War before Civilization: The Myth of the Peaceful Savage*. New York: Oxford University Press, 1996. A scholarly but readable work, this is the best recent anthropological study of primitive war. This book has changed our understanding of early and marginal warfare.

Keen, Maurice. *Chivalry*. New Haven, CT: Yale University Press, 1984. A scholarly and readable introduction to chivalry that treats it as an aristocratic military code.

Kennedy, Hugh. *The Armies of the Caliphs: Military and Society in the Early Islamic State*. London: Routledge, 2001. While it might be tough going for one not familiar with the period, this is an excellent study of the development of the professional armies of the caliphate.

Knightley, Phillip. *The First Casualty: The War Correspondent as Hero and Myth-Maker from the Crimea to Iraq*. 3rd ed. Baltimore, MD: Johns Hopkins University Press, 2004. A thorough history of war journalism, this makes an excellent introduction to the interaction of war and the media.

Kuklick, Bruce. *Blind Oracles: Intellectuals and War from Kennan to Kissinger*. Princeton, NJ: Princeton University Press, 2006. A powerful critique of the mistakes of the academic analysts and think tanks that dominated—and to some extent still dominate—American strategic thinking.

Kurlansky, Mark. *Non-Violence: The History of a Dangerous Idea*. New York: Modern Library, 2008. While somewhat preachy and patchy in spots, this book is full of interesting detail on the history of pacifism and nonviolence.

Lee, A. D. *War in Late Antiquity*. Malden, MA: Basil Blackwell, 2007. While focusing almost exclusively on the late Roman army, this work puts the military and warfare in social, political, and economic context.

Li, Nan. *Chinese Civil-Military Relations: The Transformation of the People's Liberation Army*. New York: Routledge, 2006. An analysis of the changing role of the Chinese military in the politics—and economy—of communist China.

Lloyd, Alan B. "Philip II and Alexander the Great: The Moulding of Macedon's Army." In *Battle in Antiquity*, edited by Alan B. Lloyd, 169–198. London: Duckworth, 1996. This is a short and readable discussion of the importance of military reform in Alexander the Great's success.

Loewe, Michael. "The Campaigns of Han Wu-Ti." In *Chinese Ways in Warfare*, edited by Frank A. Kierman Jr. Cambridge, MA: Harvard University Press, 1974. This chapter is an excellent study of Han warfare, as well as of the military leadership of one of China's greatest conquerors.

Lutz, James Michael, and Brenda J. Lutz. *Terrorism: Origins and Evolution*. New York: Palgrave Macmillan, 2005. One of the few works on the subject that views terrorism in a broad historical and global perspective.

Lynn, John A. *The Bayonets of the Republic: Motivation and Tactics in the Army of Revolutionary France, 1791–94*. Urbana: University of Illinois Press, 1984. In this valuable study, Lynn delves into the question of discipline and combat effectiveness in an army that was in some respects raised from scratch.

Lyons, Malcolm C., and D. E. P. Jackson. *Saladin: The Politics of the Holy War*. New York: Cambridge University Press, 1982. Not for beginners, but the use of Arabic sources gives this in-depth biography a firmly Muslim perspective.

Madden, Thomas F. *The New Concise History of the Crusades*. Lanham, MD: Rowman & Littlefield, 2005. This is an excellent introduction to this period of medieval religious warfare; it takes both sides into consideration and puts events into a contemporary perspective.

Malone, Patrick. *The Skulking Way of War: Technology and Tactics among the New England Indians*. Baltimore, MD: Johns Hopkins University Press, 2000. Although this text is mainly concerned with the impact of firearms, the first chapter discusses precontact warfare in eastern North America.

Mawdsley, Evan. *The Russian Civil War*. Boston: Allen & Unwin, 1987. A short introduction to a very complicated and brutal struggle, this text focuses on the question of how and why the communists won.

McNeill, William. *The Pursuit of Power: Technology, Armed Force, and Society since A.D. 1000*. Chicago: University of Chicago Press, 1982. A classic work by one of the first great world historians; despite its flaws, is an important argument for the importance of market economies in the growth of military power.

Mielczarek, Mariusz. *Cataphracti and Clibanarii: Studies on the Heavy Armoured Cavalry of the Ancient World*. Translated by Maria Abramowicz. Lodz, Poland: Oficyna Naukowa MS, 1993. The author, a Polish professor of archaeology, is one of the world's experts in the cavalry of ancient Central Asia. Although published in Poland, the book is available on the Internet.

Miller, Nathan. *Broadsides: The Age of the Fighting Sail, 1775–1815*. New York: Wiley, 2001. A highly readable introduction into how the wooden world functioned, especially useful for its focus on the professionalism of both crew and officers.

Morillo, Stephen. "Guns and Government: A Comparative Study of Europe and Japan." *Journal of World History* 6 (1995): 75–106. This article is an excellent study on the similarities and differences in the use of the gun at either end of the core.

Morillo, Stephen, Jeremy Black, and Paul Lococo. *War in World History*. New York: McGraw-Hill, 2008. A very good introduction to the subject, but it suffers somewhat from being too short for a global survey of military history.

Murphey, Rhoads. *Ottoman Warfare, 1500–1700*. New Brunswick, NJ: Rutgers University Press, 1999. While focusing mainly on the 17th century, this work argues that the Ottomans successfully adopted the European-style gun and integrated it into their military system.

Nalty, Bernard. *Strength for the Fight: A History of Black Americans in the Military*. New York: Free Press, 1989. Though focused on the modern period, this remains the best academic introduction to the issue of race in the American armed forces.

Neier, Aryeh. *War Crimes: Brutality, Genocide, Terror, and the Struggle for Justice*. New York: Times Books, 1998. This work, by a Holocaust survivor and former head of Amnesty International, is both a historical survey and an analysis of war crime tribunals.

Niditch, Susan. *War in the Hebrew Bible: A Study in the Ethics of Violence*. New York: Oxford University Press, 1993. Not a study in ethics but an analysis of the various attitudes toward war in the biblical text. Densely argued but well worth reading.

O'Connell, Robert L. *Of Arms and Men: A History of War, Weapons, Aggression*. New York: Oxford University Press, 1989. An excellent study discussing the impact of weapons on warfare. As it was written during the Cold War, the latter section is somewhat dated but still well worth reading.

Otterbein, Keith. *How War Began*. College Station: Texas A&M University Press, 2004. While arguing for the existence of Paleolithic war, this book challenges the idea that war is natural to humans. This is the most important recent book on war's origins.

Overly, Richard. *Why the Allies Won*. New York: Norton, 1995. A well-argued thesis that the economic flexibility of the Western powers, and the inefficiency of the fascist ones, played a key role in Allied victory in World War II.

Palmer, Michael A. *Command at Sea: Naval Command and Control since the Sixteenth Century*. Cambridge, MA: Harvard University Press, 2005. A superb study of the problems of control and command at sea and how European navies solved them.

Parker, Geoffrey. *Europe in Crisis, 1598–1648*. Malden, MA: Blackwell, 2001. An updated version of a survey textbook on this period of intense European religious wars, by the author of *The Military Revolution*.

———. *The Military Revolution: Military Innovation and the Rise of the West 1500–1800*. 2nd ed. Cambridge: University of Cambridge Press, 1996. A classic work—one that changed the writing of military history. It is a must-read.

Peers, Douglas M. *Between Mars and Mammon: Colonial Armies and the Garrison State in India, 1819–1835*. New York: Tauris Academic Studies, 1995. Most books on colonial militaries focus on warfare, but this book is a study of the garrison army of India and its relationship to civilian authority.

———, ed. *Warfare and Empires: Contact and Conflict Between European and Non-European Military and Maritime Forces and Cultures*. Brookfield, VT: Ashgate/Variorum, 1997. This is an interesting collection of articles on various aspects of the spread of military culture around the world. Especially good on India.

Perdue, Peter C. *China Marches West: The Qing Conquest of Central Eurasia*. Cambridge, MA: Belknap Press, 2005. This is a recent and comprehensive study of Ch'ing military expansion and conflicts with neighboring states, with ample attention to questions of administration and logistics.

Perlmutter, David D. *Visions of War: Picturing Warfare from the Stone Age to the Cyber Age*. New York: St. Martin's Press, 1999. A readable and thought-provoking study of the representation of war in images, it is the best work on the subject.

Perrin, Noel. *Giving Up the Gun: Japan's Reversion to the Sword, 1543–1879*. Boston: D. R. Godine, 1979. While some of Perrin's points have been challenged by more recent scholarship, this groundbreaking work on the de-gunpowdering of Japan is still well worth reading.

Porter, Bruce D. *War and the Rise of the State: The Military Foundations of Modern Politics*. New York: Free Press, 2002. Written by a political scientist, this work makes a powerful case that not only do states make war, but war makes states.

Postgate, J. N. *Taxation and Conscription in the Assyrian Empire*. Rome: Biblical Institute Press, 1974. While dense and highly technical, and dealing only tangentially with the army, this is an invaluable study of the administration that made the Assyrian Empire so influential.

Prucha, Francis Paul. *The Sword of the Republic: The United States Army on the Frontier, 1783–1846*. New York: Macmillan, 1968. This remains an important study of the importance of the army in opening the American frontier—not by war, but by building infrastructure.

Ralston, David. *Importing the European Army: The Introduction of European Military Techniques and Institutions in the Extra European World, 1600–1914*. Chicago: University of Chicago Press, 1990. While primarily focused on 19th-century interactions, it does discuss the 18th century in some detail.

Ramold, Steven J. *Slaves, Sailors, Citizens: African Americans in the Union Navy*. DeKalb: Northern Illinois University Press, 2002. This study focuses only on the Civil War, but it is a good introduction to the integrated nature of crews throughout the wooden world.

Reed, Nelson. *The Caste War of the Yucatan*. Stanford, CA: Stanford University Press, 2001. A scholarly but readable account of the little-known Mayan independence movement and its Christian connections.

Reiter, Dan, and Allan C. Stam. *Democracies at War*. Princeton, NJ: Princeton University Press, 2002. Basically a book of political theory, this is still a good read for historians looking at the way that 20th-century democratic ideology impacted war making.

Roth, Jonathan P. "War." In *The Cambridge History of Greek and Roman Warfare. Vol. 1: Greece, the Hellenistic World and the Rise of Rome*, edited by Philip Sabin, Hans van Wees, and Michael Whitby, 368–398. Cambridge: Cambridge University Press, 2007. This chapter discusses military methodology in the Hellenistic and Roman republican periods, focusing on logistics and command.

Russell-Wood, A. J. R. *The Portuguese Empire, 1415–1808*. Baltimore, MD: Johns Hopkins University Press, 1998. While not a military history, this work gives a good introduction to the details of European world expansion.

Saideman, Stephen M., and R. William Ayres. *For Kin or Country: Xenophobia, Nationalism and War*. New York: Columbia University Press, 2008. This new work emphasizes the importance of nationalism in the wars of the 20th century.

Sajer, Guy. *The Forgotten Soldier*. Translated by Lily Emmet. New York: Harper & Row, 1971. There have been attempts, wrong in my view, to question the authenticity of this autobiographical account by a soldier on the Eastern Front in World War II, but German soldiers have confirmed its powerful narrative.

Sandars, Nancy. *The Sea Peoples: Warriors of the Ancient Mediterranean, 1250–1150 B.C.* London: Thames and Hudson, 1985. This is a thorough and readable introduction to the late Bronze Age and the complex problem of the Sea Peoples.

Sandler, Stanley. *The Emergence of the Modern Capital Ship*. Newark: University of Delaware Press, 1979. This book focuses mainly on the development (in late 19th-century Britain) of the mastless, turreted warship and is a good introduction into this vital period of naval innovation.

Scheina, Robert L. *Latin America's Wars, Volume I: The Age of the Caudillo, 1791–1899*. Washington, DC: Brassey's, 2003. Remarkably, this is the first book in English published on the subject. It is an excellent study of the region's 19th-century wars and warfare.

Schwartz, Seth. *Imperialism and Jewish Society, 200 B.C.E. to 640 C.E.* Princeton, NJ: Princeton University Press, 2001. This is an innovative and thought-provoking work—one of the few that addresses the complex interaction between Judaism and the Roman Empire.

Seaton, Philip A. *Japan's Contested War Memories: The "Memory Rifts" in Historical Consciousness of World War II*. New York: Routledge, 2009. This book makes the point that the Japanese rewriting of history is by no means a feature of their culture but is common in modern societies.

Showalter, Dennis E. *Railroads and Rifles: Soldiers, Technology, and the Unification of Germany*. Hamden, CT: Archon Books, 1975. A classic monograph that discusses the effects of technological change on society as a whole but maintains its focus on the military and warfare.

Sidebottom, Harry. *Ancient Warfare: A Very Short Introduction*. Oxford: Oxford University Press, 2004. Part of a great series of such books, this is excellent introduction to ancient warfare, as well as a well-argued critic of the idea of the so-called Western way of war.

———. "Philosopher's Attitudes to Warfare under the Principate." In *War and Society in the Roman World*, edited by John Rich and Graham Shipley. London: Routledge, 1993. A well-argued and readable introduction to the various ideological views of warfare among Roman intellectuals. This is very important work for understanding both pre-Christian and Christian attitudes.

Smail, R. C. *Crusading Warfare, 1097–1193*. New York: Cambridge University Press, 1995. Despite its name, this book is as much on Muslim as on European warfare and a good introduction to both, but be prepared for untranslated Latin quotations!

Smaldone, Joseph P. *Warfare in the Sokoto Caliphate: Historical and Sociological Perspectives*. New York: Cambridge University Press, 1977. This sociological study of a highly militarized culture has ramifications outside the history of African warfare, itself a neglected topic.

Spence, Jonathon D. *God's Chinese Son: The Taiping Heavenly Kingdom of Hong Xiuquan*. New York: W. W. Norton, 1997. This is the best introduction to one of the most important military events of the 19th century and its ideological roots.

Starkey, Armstrong. *European–Native American Warfare, 1675–1815*. Norman: University of Oklahoma, 1998. This book stresses both the relative success of Indians early on and the importance of European adoption of Native American tactics in order to defeat them.

Stoecker, Sally. *Forging Stalin's Army: Marshal Tukhachevsky and the Politics of Military Innovation*. Boulder, CO: Westview Press, 1999. This is an excellent study of the debate over ideology and professionalism in military theory in the first decades of the Soviet Union.

Suri, Jeremi. *Power and Protest: Global Revolution and the Rise of Detente*. Cambridge, MA: Harvard University Press, 2003. This work argues that the worldwide cultural upheavals of the 1960s had a profound impact on the strategic thinking of the period.

Sweeney, Michael S. *Secrets of Victory: The Office of Censorship and the American Press and Radio in World War II*. Chapel Hill: University of North Carolina Press, 2000. While confined to the United States and World War II, this book illuminates many of the practical and ideological issues of censorship throughout the 20th century.

Taber, Robert. *The War of the Flea*. London: Granada, 1965. The classic study of 20th-century guerrilla warfare, it remains the first stop for anyone interested in understanding the subject.

Taylor, Philip M. *Munitions of the Mind: A History of Propaganda from the Ancient World to the Present Era*. Manchester, UK: Manchester University Press, 2003. Although it focuses almost entirely on the West, this is a comprehensive and well-written introduction to the subject of propaganda, especially in the modern period.

Tilly, Charles. *Coercion, Capital, and European States, A.D. 990–1990*. Cambridge, MA: Basil Blackwell, 1990. A broad-ranging study that goes up to the 20th century; but very valuable in its discussion of the economy and medieval warfare.

Upton, Emory. *Armies of Asia and Europe: Embracing Official Reports of the Armies of Japan, China, India, Persia, Italy, Russia, Austria, Germany, France, and England*. New York: Greenwood Press, 1968. First published 1878. This is a reprinted edition of a remarkable primary source, not only for comparing the makeup of European and non-European armies, but for illuminating the mind-set of the 19th-century military professional.

Vagts, Alfred. *A History of Militarism: Civilian and Military*. New York: Free Press, 1959. This is an older work but still a classic well worth reading. It covers the development and importance of militarism in 19th- and 20th-century Europe.

Van Creveld, Martin. *The Culture of War*. New York: Presidio Press, 2008. While this book covers the culture of war from the ancient world to the present, it is especially valuable in understanding how military culture reacted to industrialism.

———. *Technology and War from 2000 B.C. to the Present*. New York: Collier Macmillan, 1989. An excellent work from one of the leading military historians. Not simply an introduction, it argues several very thought-provoking ideas on the interaction of technology and war.

Van Wees, Hans. *Greek Warfare: Myths and Realities*. London: Routledge, 2004. An excellent and up-to-date discussion of many of the problems of Greek warfare, although less useful on the navy than the army.

———. *Status Warriors: War, Violence and Society in Homer and History*. Amsterdam: J. C. Gieben, 1992. While its conclusions are often challenged, this is an excellent introduction to the problem of warfare in Homer. It is both scholarly and readable.

Vayda, Andrew Peter. *Maori Warfare*. Wellington, New Zealand: Polynesian Society, 1960. An old and difficult to find monograph, this is one of the few in-depth discussions of precontact Polynesian warfare.

Vergruggen, J. F. *The Art of Warfare in Western Europe during the Middle Ages: From the Eighth Century to 1340*. Translated by Sumner Willard and S. C. M. Southern. New York: North-Holland, 1977. Originally published in the 1950s and then updated in the 1970s, this is a dense read but worthwhile for its brilliant analysis of medieval Western warfare.

Victoria, Brian Daizen. *Zen at War*. New York: Weatherhill, 1979. While primarily focused on Japanese Buddhism during World War II, this is one of the few books on the subject of Buddhist holy war.

Vincent, Steven. *In the Red Zone: A Journey into the Soul of Iraq*. Dallas, TX: Spence, 2004. An insightful look at the early years of the Iraq conflict by a journalist who traveled widely throughout the country and who ultimately died there at the hands of terrorists.

Voldeman, Daniele, and Luc Capdevila. *War Dead: Western Societies and the Casualties of War*. New York: Columbia University Press, 2007. This is a study not only of cemeteries and war memorials but of how casualties are treated by the military and the society of different countries, revealing much about their cultures.

Wallinga, H. T. *Ships and Sea-Power before the Great Persian War: The Ancestry of the Ancient Trireme*. Leiden, Netherlands: E. J. Brill, 1993. This work is an important and iconoclastic study of the origins of the trireme and shipping in the first half of the 1st millennium B.C.

Ward, Harry. *The War for Independence and the Transformation of American Society*. London: Routledge, 1999. A fascinating look at how the war changed not only the American military but the broader society as well.

Weatherford, Jack. *Genghis Khan and the Making of the Modern World*. New York: Crown, 2004. This highly readable work by an anthropologist is less about Genghis Khan himself than about the impact of the Mongols on world history.

Weber, David J. *The Spanish Frontier in North America*. New Haven, CT: Yale University Press, 1994. This book, now available in a shorter version for students, emphasizes the reciprocal relationship between the Spanish and native peoples, not least in military matters.

Webster, David. "Ancient Maya Warfare." In *War and Society in the Ancient and Medieval Worlds*, edited by K. Raaflaub and N. Rosenstein, 333–360. Cambridge, MA: Harvard University Press, 1999. An excellent discussion of the changing attitude toward Mayan warfare brought about by the decipherment of their script.

Wesseling, H. L. *The European Colonial Empires: 1815–1919*. Translated by Diane Webb. New York: Longman, 2004. This is a scholarly text that successfully combines a narrative description with an overall analysis of 19th-century European imperialism.

Westad, Odd. *The Global Cold War*. Cambridge: Cambridge University Press, 2005. By focusing on the Cold War in the third world, this work brings out how the ideologies of the two superpowers were not always translated into the nationalistic and other realities on the ground.

Whitby, Michael. "Reconstructing Ancient Warfare." In *The Cambridge History of Greek and Roman Warfare. Vol. 1: Greece, the Hellenistic World and the Rise of Rome*, edited by Philip Sabin, Hans van Wees, and Michael Whitby, 54–84. Cambridge: Cambridge University Press, 2007. Detailed but highly readable, this is an excellent introduction to the use of primary sources in understanding ancient warfare.

Winter, Jay. *Remembering War: The Great War between Memory and History in the Twentieth Century*. New Haven, CT: Yale University Press, 2006. While burdened somewhat by academic jargon, this is a good survey of the various ways in which the First World War was memorialized and remembered.

Yates, Robin D. S. "Early China." In *War and Society in the Ancient and Medieval Worlds*, edited by K. Raaflaub and N. Rosenstein, 7–45. Cambridge, MA: Harvard University Press, 1999. A start for Eurocentric military historians, this is a short but well-written introduction to warfare in China in the early period.

Zarrow, Peter. *China in War and Revolution, 1895–1949*. New York: Routledge, 2005. A good introduction to the wrenching changes, driven primarily by warfare, that China went through in the first half of the 20th century.

Zorlu, Tuncay. *Innovation and Empire in Turkey: Sultan Selim III and the Modernisation of the Ottoman Navy*. New York: Tauris Academic Studies, 2008. A good example of the excellent work of a new generation of Turkish scholars on military history now appearing in English.

Zürcher, Erik. *The Buddhist Conquest of China*. Leiden, Netherlands: E. J. Brill, 2006. A reprint of a work originally published in 1959, but still the best work on the subject available in English. Like all books published by Brill (including my own) this is too expensive for most people to buy—so check it out of the library.